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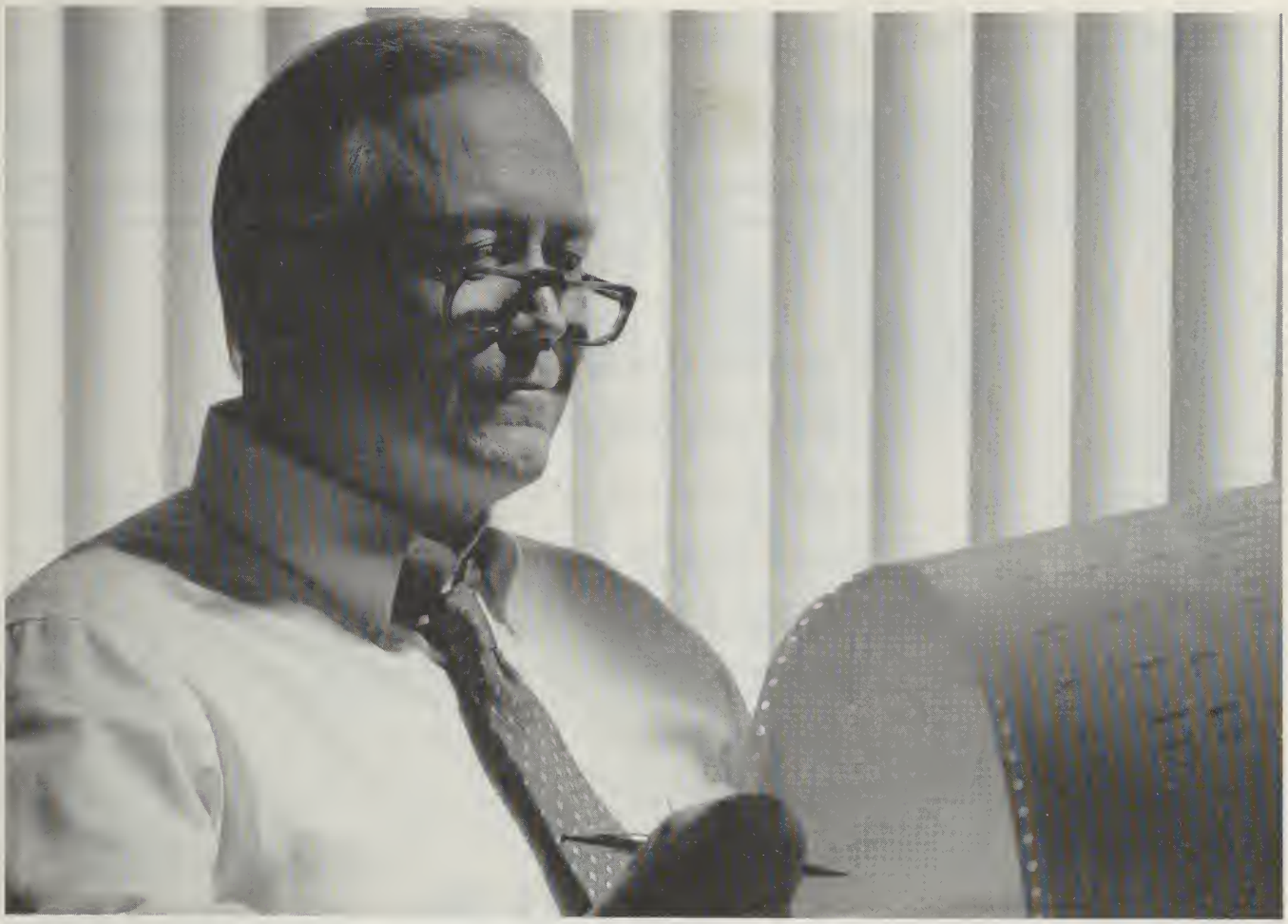
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ARTICLES

Antitrust's Recent Attack on the Peer Review Practitioner: Is the Health Care Quality Improvement Act a Viable Remedy? 21
Alan M. Rifkin, Esq., Gerard E. Evans, Esq., and Greg D. Hall, Esq.
Peer review, an increasingly important function in the hospital setting, is unique in that physicians are granted the task of evaluating and supervising the actions of their counterparts. Regardless of the consequences resulting from the peer-review system now operating within the hospitals, it will continue to be a mainstay until a more workable alternative is proved successful.

Med Chi . . . Our Best Defense in Annapolis 33
Angelo J. Troisi FACHE, Executive Director
Last September Med Chi's Council entered into a five-year contract with the law firm of Rifkin, Evans, Silver, and Lamone. The contract requires the firm to provide legislative and legal advice on all matters facing the Faculty.

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The Epidemiology of AIDS in Maryland, 1981 - 1987 83
Joseph T. Horman DVM, MPH; Ebenezer Israel MD, MPH; and Gillian Ann van Blerk MD, MPH
From 1981 through 1987, a total of 1,068 AIDS cases were diagnosed in Maryland; 62.8 percent occurred in the homosexual/bisexual male cohort followed by intravenous drug abusers, 21.8 percent. Time trends suggest that proportionally fewer cases of AIDS will occur among homosexual/bisexual males and transfusion patients, and more cases will appear among intravenous drug abusers and heterosexuals.

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Medical and Chirurgical Faculty of Maryland

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Along with an updated legislative directory, this year's annual legislative issue of the *Maryland Medical Journal* contains four faculty position papers written at the request of Med Chi's president, Raymond M. Atkins MD. These "white papers" are the product of Med Chi committee consensus and have been amended and adopted by Council. We publish them here for your information and use.

The article by Rifkin, Evans, and Hall stating that most hospitals have an excellent peer-review process in place, urges peer-review groups to consult with the hospital's board of trustees to consider whether some form of the HCQIA due-process guidelines is available to medical staff members and whether the hospital's insurance coverage provides antitrust protection to peer review participants.

In the final legislative article, Angelo Troisi describes the wealth of talent available to Med Chi members from the combination of legal, legislative, and political experience encompassed in the law firm of Rifkin, Evans, Silver, and Lamone.

Cover photo by Michelle Dunn.

Occurrence-Type Malpractice Coverage Is A Physician's Best Protection During Bad Times

Most physicians have in some way been affected by the last decade's volatile malpractice insurance market. Huge premium increases, restrictions on lateral changes from one insurer to another, and the ever-present threat of large "tail" costs forcing physicians to stay put, like it or not, are all part of recent malpractice insurance history.

Times are better now with malpractice insurers competing for your business. How long will it last? That is anyone's guess. Where is the best place to be insured when the pendulum swings the other way and prices rise again?

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January 1990

Current Treatment Guidelines for Sexually Transmitted Diseases

The Centers for Disease Control published updated treatment guidelines for Sexually Transmitted Diseases (STD) in Morbidity and Mortality Weekly Report, September 1, 1989 Vol. 38, No S-8. In this issue we will provide the treatment guidelines for early syphilis, late latent, cardiovascular syphilis and neurosyphilis, and a protocol for syphilis diagnosis and treatment. In future issues we will provide treatment guidelines for congenital syphilis, syphilis in pregnancy, and several other commonly occurring STD's. The 1989 Sexually Transmitted Diseases Treatment Guidelines are being reprinted and will be available in 4-8 weeks. Interested health care providers may obtain copies by contacting their local health department.

Syphilis

Serologic Tests

Dark-field examinations and direct fluorescent antibody tests on lesions or tissue are the definitive methods for diagnosing early syphilis. Presumptive diagnosis is possible by using two types of serologic tests for syphilis: 1) treponemal (e.g., fluorescent treponemal antibody absorbed [FTA-ABS], microhemagglutination assay for antibody to T. pallidum [MHATP] and 2) nontreponemal (e.g., Venereal Disease Research Laboratory [VDRL], rapid plasma reagin [RPR]. Neither test alone is sufficient for diagnosis. Treponemal antibody tests, once positive, usually remain so for life, regardless of treatment or disease activity. Treponemal antibody titers do not correlate with disease activity and should be reported as positive or negative. Nontreponemal antibody titers do tend to correlate with disease activity, usually rising with new infection and falling after treatment. Nontreponemal antibody test results should be reported quantitatively and titered out to a final end point rather than reported as greater than an arbitrary cutoff (e.g., 1:512). With regard to changes in nontreponemal test results, a fourfold change in titers is equivalent to a two-dilution change - e.g., from 1:16 to 1:4, or from 1:8 to 1:32.

For sequential serologic tests, the same test (e.g., VDRL or RPR) should be used, and it should be run by the same laboratory. The VDRL and RPR are equally valid, but RPR titers are often slightly higher than VDRL titers and therefore are not comparable.

Neurosyphilis cannot be accurately diagnosed from any single test. Cerebrospinal fluid (CSF) tests should include cell count, protein, and VDRL (not RPR). The CSF leukocyte count is usually elevated ($5 \geq$ WBC/mm^3) when neurosyphilis is present and is a sensitive measure of the efficacy of therapy. VDRL is the standard test for CSF; when positive it is considered diagnostic of neurosyphilis. However, it may be negative when neurosyphilis is present and cannot be used to rule out neurosyphilis. Some experts also order an FTA-ABS; this may be less specific (more false positives) but is highly sensitive. The positive predictive value of the CSF-FTA-ABS is lower, but when negative, this test provides evidence against neurosyphilis.

Early Syphilis

Primary and Secondary Syphilis and Early Latent Syphilis of Less than 1 Year's Duration

Recommended Regimen

Benzathine penicillin G. 2.4 million units IM, in one dose.

Alternative Regimen for Penicillin-Allergic Patients (Nonpregnant)

Doxycycline, 100 mg orally 2 times a day for 2 weeks ,

or

Tetracycline, 500 mg orally 4 times a day for 2 weeks

Doxycycline and tetracycline are equivalent therapies. There is less clinical experience with doxycycline, but compliance is better. In patients who cannot tolerate doxycycline or tetracycline, three options exist:

* If follow-up or compliance cannot be ensured, the patient should have skin testing for penicillin allergy and be desensitized if necessary (see MMWR, Vol. 38, No. S-8, 9/1/89).
* If compliance and follow-up are ensured, erythromycin, 500 mg orally 4 times a day for 2 weeks, can be used.
* Patients who are allergic to penicillin may also be allergic to cephalosporins; therefore, caution must be used in treating a penicillin-allergic patient with a cephalosporin. However, preliminary data suggest that ceftriaxone, 250 mg IM once a day for 10 days, is curative--but careful follow-up is mandatory.

Follow-Up

Treatment failures can occur with any regimen. Patients should be reexamined clinically and serologically at 3 months and 6 months. If nontreponemal antibody titers have not declined fourfold by 3 months with primary or secondary syphilis, or by 6 months in early latent syphilis, or if signs or symptoms persist and reinfection has been ruled out, patients should have a CSF examination and be retreated appropriately.

HIV-infected patients should have more frequent follow-up, including serologic testing at 1, 2, 3, 6, 9, and 12 months. In addition to the above guidelines for 3 and 6 months, any patient with a fourfold increase in titer at any time should have a CSF examination and be treated with the neurosyphilis regimen unless reinfection can be established as the cause of the increased titer.

Lumbar Puncture in Early Syphilis

CSF abnormalities are common in adults with early syphilis. Despite the frequency of these CSF findings, very few patients develop neurosyphilis when the treatment regimens described above are used. Therefore, unless clinical signs and symptoms of neurologic involvement exist, such as optic, auditory, cranial nerve, or meningeal symptoms, lumbar puncture is not recommended for routine evaluation of early syphilis. This recommendation also applies to immunocompromised and HIV-infected patients, since no clear data currently show that these patients need increased therapy.

HIV Testing

All syphilis patients should be counseled concerning the risk of HIV and be encouraged to be tested for HIV.

Late Latent Syphilis of More Than 1 Year's Duration, Gummas, and Cardiovascular Syphilis

All Patients should have a thorough clinical examination. Ideally, all patients with syphilis of more than 1 year's duration should have a CSF examination; however, performance of lumbar puncture can be individualized. In older asymptomatic individuals, the yield of lumbar puncture is likely to be low; however, CSF examination is clearly indicated in the following specific situations:

* Neurologic signs or symptoms
* Treatment failure
* Serum nontreponemal antibody titer $\geq$1:32
* Other evidence of active syphilis (aortitis, gumma, iritis)
* Nonpenicillin therapy planned
* Positive HIV antibody test

Note: If CSF examination is performed and reveals findings consistent with neurosyphilis, patients should be treated for neurosyphilis (see next section). Some experts also treat cardiovas-

cular syphilis patients with a neurosyphilis regimen.

Recommended Regimen

Benzathine penicillin G, 7.2 million units total, administered as 3 doses of 2.4 million units IM, given 1 week apart for 3 consecutive weeks.

Alternative Regimen for Penicillin-Allergic Patients (Nonpregnant)

Doxycycline, 100 mg orally 2 times a day for 4 weeks,

or

Tetracycline, 500 mg orally 4 times a day for 4 weeks.

If patients are allergic to penicillin, alternate drugs should be used only after CSF examination has excluded neurosyphilis. Penicillin allergy is best determined by careful history taking, but skin testing may be used if the major and minor determinants are available (see MMWR, Vol 38, No S-8, 9/1/89).

Follow-Up

Quantitative nontreponemal serologic tests should be repeated at 6 months and 12 months. If titers increase fourfold, if an initially high titer ($\geq$1:32) fails to decrease, or if the patient has signs or symptoms attributable to syphilis, the patient should be evaluated for neurosyphilis and retreated appropriately.

HIV Testing

All syphilis patients should be counseled concerning the risks of HIV and be encouraged to be tested for HIV antibody.

Neurosyphilis

Central nervous system disease may occur during any stage of syphilis. Clinical evidence of neurologic involvement (e.g., optic and auditory symptoms, cranial nerve palsies) warrants CSF examination.

Recommended Regimen

Aqueous crystalline penicillin G, 12-24 million units administered 2-4 million units every 4 hours IV, for 10-14 days.

Alternative Regimen (If Outpatient Compliance Can Be Ensured)

Procaine penicillin, 2.4 million units IM daily and Probenecid, 500 mg orally 4 times a day, both for 10-14 days.

Many authorities recommend addition of benzathine penicillin G, 2.4 million units IM weekly for three doses after completion of these neurosyphilis treatment regimens. No systematically collected data have evaluated therapeutic alternatives to penicillin. Patients who cannot tolerate penicillin should be skin tested and desensitized, if necessary, or managed in consultation with an expert.

Follow-Up

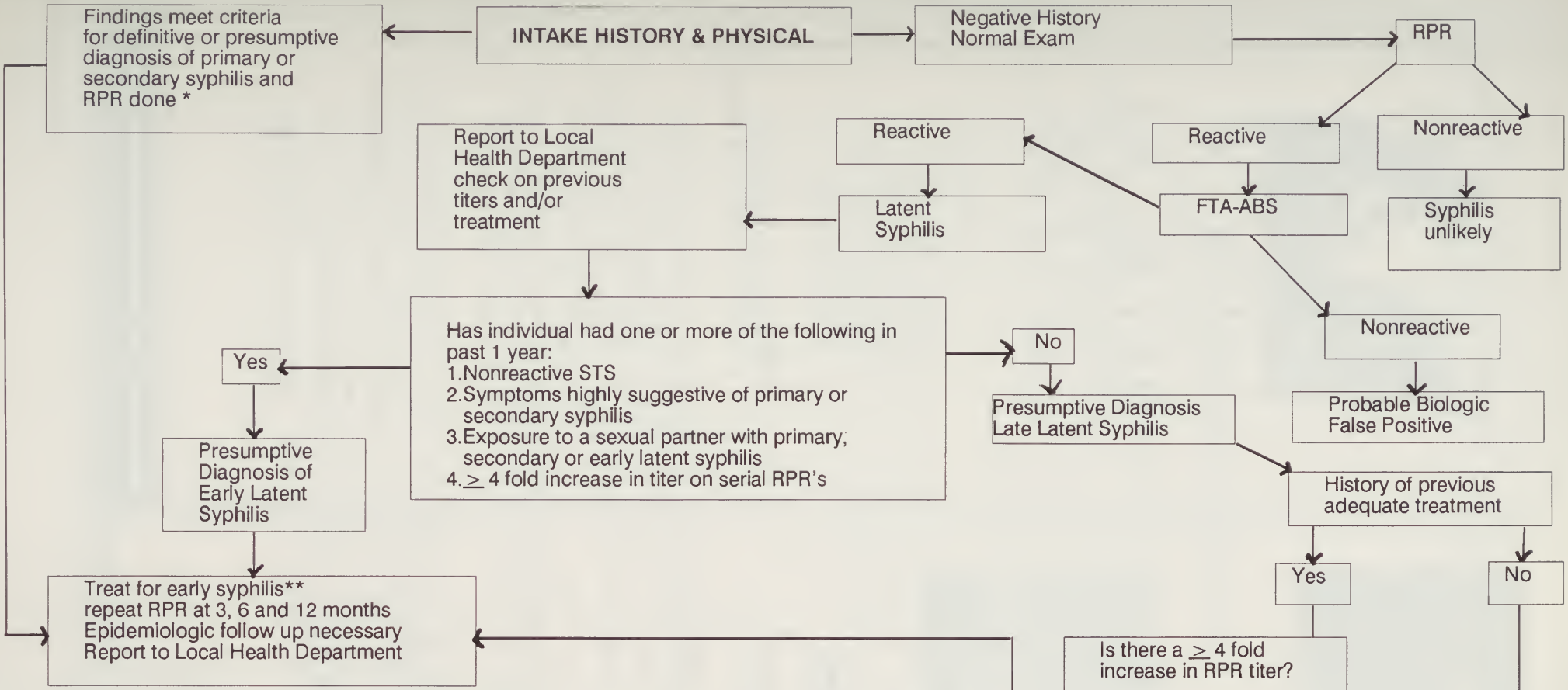
If an initial CSF pleocytosis was present, CSF examination should be repeated every 6 months until the cell count is normal. If it has not decreased at 6 months, or is not normal by 2 years, retreatment should be strongly considered.

HIV Testing

All syphilis patients should be counseled concerning the risks of HIV and be encouraged to be tested for HIV antibody.

See next page for Protocol for Syphilis Diagnosis and Treatment

PROTOCOL FOR SYPHILIS DIAGNOSIS AND TREATMENT



* from: Quality Assurance Guidelines for STD Clinics, 1986 USPHS, CDC

Criteria for primary syphilis

a. Definitive: Treponema pallidum demonstrated by darkfield microscopy or by Direct Fluorescent Antibody stain for T. pallidum (DFTAP) in material from a chancre or aspriate from a regional lymph node. (Use DFATP for oral lesions)

b. Presumptive: one or more typical lesions (chancres) and
   1) Reactive nontreponemal tests but no previous history of syphilis or reactive nontreponemal tests.
   2) The titer of the present nontreponemal test is ≥ 4 fold the last test.
   3) Lesions have appeared within 10 - 90 days of exposure to a partner with primary, secondary or early latent syphilis.

Criterial for secondary syphilis

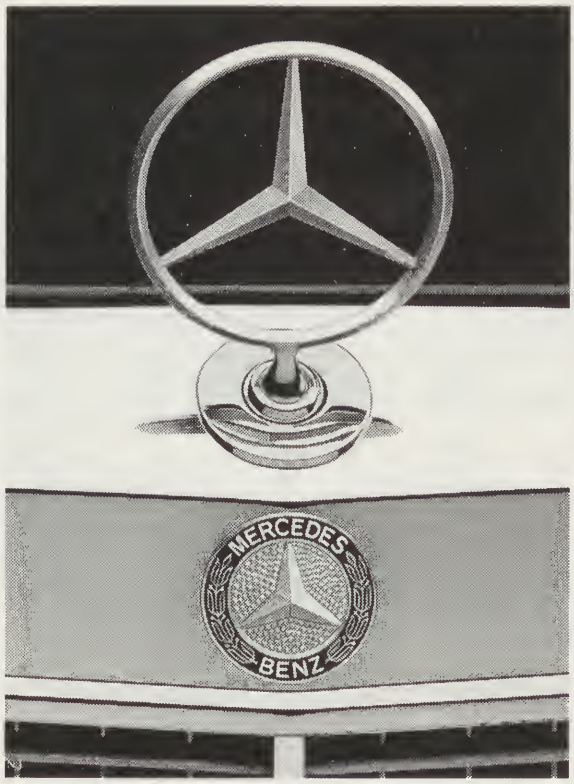
a. Definitive: A postive nontreponemal test plus darkfield microscopic or DFATP demonstration of T. pallidum from skin lesions or lymph nodes.

b. Presumptive: A newly reactive serologic test or a ≥ 4 fold increase in titer over last known nontreponemal test plus signs of secondary syphilis (one or more may be present):
   1) Bilaterally symmetrical macular, papular, follicular, papulo-squamous, or pustular skin lesions
   2) Loss of eyelashes and lateral third of eyebrows
   3) Iritis
   4) Condylomata lata (moist papules usually in anogenital region or mouth)
   5) Mucous patches of the oropharynx or cervix
   6) Generalized lymphadenopathy
   7) Fever and malaise
   8) Splenomegaly

** Benzathine penicillin G 2.4 million units IM in a single dose

***Benzathine penicillin G 2.4 million units IM once a week for 3 consecutive weeks (Total dose 7.2 million units)

Consult 1989 STD Treatment Guidelines for management of penicillin allergic patients and patients with tertiary syphilis.



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The President's Letter

Prepared by the President of the Medical and Chirurgical Faculty of Maryland as a service to its members

Medical and Chirurgical Faculty of Maryland

January, 1990

Med Chi's Western Regional Conference

In an effort to improve communication between Med Chi and its membership, Med Chi held a Western Regional Conference on Saturday October 28, 1989 at the Hagarstown Ramada Inn. The meeting was hosted by Ramsay J. Farah MD, President of the Washington County Medical Society. Robustiano J. Barrera MD, President-Elect of Allegany County Medical Society, and several area physicians met with Executive Director Angelo Troisi, Lobbyist Gerard Evans, and myself to discuss issues concerning physicians in western Maryland.

One of the most important/ topics addressed was the white paper by Louis C. Breschi MD, which presents various situations concerning the appropriateness and inappropriateness of physicians involvement in business ventures. Many physicians also expressed their concern regarding upcoming legislation that would require triplicate prescriptions. Other topics discussed at the meeting included physician's credentialing, antitrust activities, and Medicare physician monitoring.

Raymond M. Yow MD, Chief Executive Officer, and David Murray, Chief Operations Officer of Medical Mutual, announced during the meeting that their company plans to offer a 20 percent dividend credit to all physicians who renew their policies in 1990. In addition, both executives responded to questions about common causes of litigation.

Following lunch, Plenary Speaker Robert Vogel MD, Chief of Cardiology at the University of Maryland School of Medicine, delivered an excellent presentation on Cholesterol.

This meeting was the first of three Med Chi Regional Meetings planned during my term as President. Dates for meetings in Southern Maryland and the Eastern Shore will be announced later this year. My goals are to bring as much information as possible to physician members and to provide an open forum where the Faculty can effectively transmit its activities and accomplishments and Med Chi can become aware of the regional issues affecting the individual physician in his\her practice.

Raymond M. Atkins MD
President



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Inflammatory Carcinoma of the Breast: Part II

The early data on the management of patients with inflammatory carcinoma of the breast by mastectomy were very discouraging. Despite surgery being performed on patients with limited breast erythema and edema, their median survival ranged from 2.4 to 25 months with a five-year survival of 2.4 percent. In addition, there was a high incidence of local recurrence resulting in a fungating and ulcerating growth over the anterior chest wall. Therefore, the role of surgery in this disease became limited to the biopsy, which included a sliver of skin, subcutaneous tissue, and enough breast tissue for histopathological examination and hormonal receptors determination.

Radiation therapy then became the primary therapeutic approach in the management inflammatory carcinoma of the breast. Treatment with irradiation resulted in relatively better local control by reducing the incidence of skin ulceration, but it did not improve survival. The median disease-free survival ranged from four to six months, with a mean survival of about one year, and a five-year survival of less than 5 percent. In fact, very few patients survived beyond two years. The combination of surgery and radiation therapy also had been tried with no major impact on the outcome. Such combined treatment gave a median survival of about 18 months, with a five-year survival of 4 percent.

These poor results should have been expected because such an approach used two local-regional therapeutic modalities. As the disease tends to have an aggressive course, not only locally and regionally but also systemically, a more logical strategy is the use of systemic therapy in addition to the local-regional therapeutic modality.

Hormonal therapy combined with local irradiation was tried with no significant impact on the course of the disease. This can be expected as most inflammatory carcinomas are hormone receptor negative. Systemic chemotherapy followed by radiation therapy has been tried with some promising results. This combined approach has resulted in better local control and possible prolongation of survival.[1,2] In addition, it has been suggested that intensification chemotherapy and modern irradiation may further improve the survival.[2] However, there is some limitation to the use of radiation therapy in the management of large residual tumor after a few courses of induction chemotherapy.

In July 1976, we treated our first patient with inflammatory carcinoma with chemotherapy, then mastectomy, followed by chemotherapy with a good result.[3] Since then, we have reported on 13 other patients treated similarly by chemotherapy, mastectomy, and chemotherapy and have shown that such an approach is safe and possibly beneficial.[4] Other investigators have used the same approach and added radiation therapy at the end of the treatment with very promising results.[5,6]

More recently, we have treated 14 new patients: 10 with no distant metastases and 4 with distant metastases. The hormone receptors assayed on their primary tumors at the time of the biopsy and prior to the initiation of any therapy revealed: ER ranging from 0 to 18 fml/mg protein (median:0), and PR 0 to 71 fml/mgm protein (median:0). Over 80 percent of these patients had hormone receptor negative tumors.

Each patient was treated initially with three courses of three-drug combination chemotherapy. Each course consisted of 28 days, during which the patient received 14 days of treatment followed by 14 days of no therapy. Each course included cyclophosphamide 100 mg/m^2 intravenously on days one and eight of each course, and 5-fluorouracil 500 mg/m^2 intravenously also on days one and eight. Dose modifications were made for hematological toxicity.

After completing three courses of this initial chemotherapy, the patients were evaluated for local tumor response. Response was identified as the disappearance of all the skin erythema and edema with some reduction in the size of the tumor mass in the breast. The tumor also had to be mobile over the true chest wall.

Thirteen patients responded to the initial chemotherapy: 10 with no distant metastases and 3 out of 4 with distant metastases. All 13 patients underwent mastectomies after hematological recovery. Two to three weeks postoperatively chemotherapy was reinstated. The 10 patients without distant metastases received 9 more courses of the same combination chemotherapy, then were observed without further treatment. The 3 patients who responded to the initial chemotherapy and had distant metastases continued to receive the same combination chemotherapy without cessation.

The patient with distant metastases whose tumor did not respond to the initial 3 courses of combination chemotherapy was then treated by radiation therapy. She was then maintained on the same combination chemotherapy intensified by the addition of vincristine sulphate 1 mg/m^2 intravenously on days 1 through 8, and prednisone 40 mg/m^2 orally on days 1 through 14 of each cycle. When the total dose of doxorubicin hydrochloride of 540 mg/m^2 was reached, methotrexate was substituted at 40 mg/m^2 intravenously on days 1 and 8 of each cycle to avoid cardiac toxicity.

In case of recurrence or progression of the disease, the patients were treated with mitomycin-C and vinblastine, with or without radiation therapy as the case required. When they failed again, as evidenced by disease progression, they received phase I or II chemotherapeutic agents.

The survival data for the 10 patients who initially had no distant metastases revealed a disease-free survival that ranged from 5 to 58 months with a median of 30 months, and an overall survival that ranged from 7 to over 100 months with a median of 32 months. In this group seven had failed: 2 local recurrences, 2 supraclavicular areas, 2 skeletal, and one pleural. On the other hand, the overall survival of the four patients who had distant metastases initially ranged from four to 14 months.

Our overall results are similar to others that used comparable programs and irradiation.[5,6] Such findings suggest that an intensification chemotherapeutic program may yield better results.

References

1. Buzdar AU, Montague ED, Baker JL, et al. Management of inflammatory carcinoma of the breast with combined modality approach - An update. Cancer 1981;47:2537-42.
2. Rouesse J, Friedman S, Sarrazin D, et al. Primary chemotherapy in the treatment of inflammatory breast carcinoma: a study of 230 cases from the Institut Gustave - Roussy. J Clin Oncol 1986;4:1765-71.
3. Morris D, Aisner J, Elias EG, et al. Mastectomy as an adjuvant to combination chemotherapy. Arch Surg 1978;113:282-84.
4. Aisner J, Morris D, Elias EG, et al. Mastectomy as an adjuvant to chemotherapy for locally advanced or metastatic breast cancer. Arch Surg 1982;117:882-87.
5. Schafer P, Alberto, Forni M, et al. Surgery as part of a combined modality approach for inflammatory breast cancer. Cancer 1987;59:1063-67.
6. Burton GV, Cox EB, Leight GS, et al. Inflammatory breast carcinoma. Effective multimodal approach. Arch Surg 1987;122:1329-32.

E. GEORGE ELIAS MD, PhD
Professor of Surgery & Oncology
Director, Surgical Oncology Program

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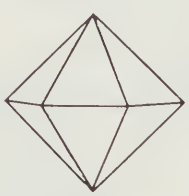
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1990 - 1991 Committee Selection Cards Attached

Executive Director's Newsle

January 1990

1990 Annual Meeting

"The 1990s: What Can We Expect?" is the theme for Med Chi's Annual Meeting to be held on May 9-11, 1990 at Turf Valley Hotel and Country Club in Ellicott City, MD. Detailed information regarding this meeting will be published in this newsletter.

1990 Semiannual Meeting

The Semiannual Meeting is planned for September 5-9, 1990 at the Southampton Princess Hotel in Bermuda. Registration fee for Med Chi members is $500. In addition, price per person, double occupancy is $999, which includes airfare, four nights accommodations, and two meals each day. If you are interested in attending this meeting, it is essential that you contact the Convention Services Department for the Faculty to inform us of your interest. Deadline for reservations is April 1, 1990.

Med Chi Legislative Directory

Included in this issue is the *Med Chi Legislative Directory*, a reference book designed to familiarize physicians with the legislative process and their state representatives. The *Directory* includes lists of Senators and Delegates by committee and provides the addresses and telephone numbers for each legislator according to their county/city/district. Physicians are strongly encouraged to tear out their copy of the *Directory* and use this valuable resource throughout the legislative session.

Committee Selections for 1990-1991

Med Chi members interested in serving on committees in 1990 are reminded to complete the committee selection card that follows this newsletter. Physicians must return this card to the Faculty in order to be considered for appointment.

Resolutions

On November 16, 1989 the Med Chi Council resolved to oppose utilization review involving patient contact. The Council also approved the formation of a Task Force that will develop a proposal for a managed care system for psychiatric services that is acceptable to the Med Chi Insurance Fund.

AIDS

Physicians wishing to learn more about participating in treatment programs for additional AIDS and HIV patients may contact the AIDS Counselor at their county health department. Physicians are reminded that, as a result of the AIDS Omnibus Bill, the Board of Physician Quality Assurance may find a basis for action on any physician who does not treat an individual because the individual is HIV positive. (HO, Section 14-504(a)(30)). Med Chi and AMA policy both state that no physician has the moral or legal right to refuse treatment of a patient within the physician's current realm of competence solely because the individual is seropositive.

Attention

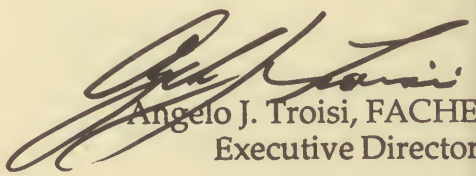
Every Maryland Physician should know that *The Maryland Medical Practice Act* has relatively new grounds for action that may be taken against a physician's license. Any physician who "sells, prescribes, gives away, or administers drugs for illegal or illegitimate medical purposes" is subject to license probation, suspension, or revocation. (HO, Section 14:504 (a)(28)). For further information on this issue, contact Greg Hall, Legal Counsel for the Faculty at 1-800-492-1056 or 301-539-0872 in Baltimore.

Physician Volunteer Projects

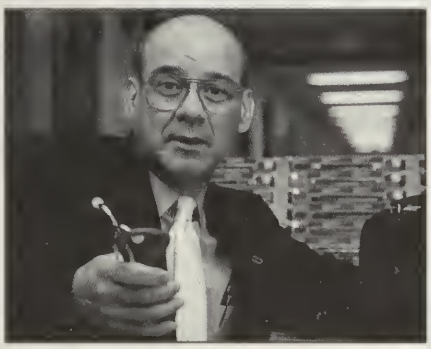
The AMA recently published a *Medical Society Guide to Physician Volunteer Projects* designed to provide medical societies with descriptions of volunteer and community service programs across the country. The *Guide* features an entry on Allegany Health Right, a project supported by the Allegany County Medical Society that provides health services to those with incomes too low for health insurance but too high for government aid. For a copy of the *Guide* contact Betsy Newman, Public Relations for the Faculty at 1-800-492-1056 or 301-539-0872 in Baltimore.

Governor's Drug Summitt

The Governor's fourth and final Drug Summitt, "Marylanders Taking Action Against Drugs," was held on November 28, 1989 at the Baltimore Convention Center. More than 1,000 people including Med Chi's Committee on Drugs Chairman, Nelson Goodman MD and Executive Director Angelo J. Troisi attended the conference and receivedcopies the Administration's proposed Drug Package for 1990. Med Chi is developing resolutions relative to this plan that are appropriate for Med Chi action.



Angelo J. Troisi, FACHE
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Antitrust's Recent Attack on the Peer Review Practitioner: Is the Health Care Quality Improvement Act a Viable Remedy?

Alan M. Rifkin, Esq., Gerard E. Evans, Esq., and Greg D. Hall, Esq.

Authors Rifkin and Evans are partners in the Baltimore-based law firm of Rifkins, Evans, Silver, and Lamone where Hall is an associate.

Peer review, an increasingly important function in the hospital setting, is unique in that physicians are granted the task of evaluating and supervising the actions of their counterparts. Regardless of the consequences resulting from the peer-review system now operating within the hospitals, it will continue to be a mainstay until a more workable alternative is proved successful.

As a result of the recent *Patrick v. Burget* decision[1] in the Supreme Court, health care practitioners (and attorneys who represent them) have expressed concern about potential antitrust liability associated with medical staff privilege decisions. Peer-review participants should realize, however, that *Patrick* is of limited scope, addressing only the state action protection available to Oregon peer-review practitioners. Of equal importance is the fact that the *Patrick* decision revolved around an egregious set of facts where peer-review participants failed to exercise "good faith" when reviewing Dr. Patrick's care.

Since its inception, peer review has served a vital function regarding the hospital's obligation to its patients. Through this mechanism, the hospital's medical staff and quality assurance committees assure the quality and appropriateness of patient care. The JCAHO (Joint Commission on Accreditation of Healthcare Organizations), state medical licensing and disciplinary agencies, and Medicare/Medicaid Conditions of participation all mandate forms of peer review to monitor and evaluate the level of care provided at each hospital facility. Peer review is essential, therefore, in controlling the type of care provided at institutions as well as the physicians practicing with them.

Peer review has become an increasingly important function in the hospital setting during the past 20 years.[2] It is unique in that members of the medical profession are granted the task of evaluating and supervising the actions of their counterparts. This has led to a great deal of controversy since physicians often are required to balance interest in quality hospital patient care against the fear of being ostracized or shunned by their fellow practitioners. Proponents of peer review contend that the practice of medicine is so specialized that physicians (or persons equivalently educated) are the only individuals knowledgeable enough to assess the treatment, skills, and abilities of other practitioners.[2] Critics of the process, however, maintain that it is similar to sending the fox to guard the chicken coop: doctors may be more interested in

preserving friendly ties with fellow physicians than insuring quality health care.[2] Regardless of the actual consequences resulting from the peer-review system presently operating within hospitals, it will continue to be a mainstay until a more workable alternative is proved successful.

We address the *Patrick*[1] decision as well as other cases involving antitrust implications associated with the peer-review process.

Peer Review: An Historical Background

To understand peer review and its current relationship to health care and the health care practitioner, it is essential to have an awareness of its development. To combat the problem of poorly instructed, and often incompetent, graduates of medical schools during the early 1800s, the American Medical Association (AMA) was founded in 1846.[3] Although the AMA did achieve some of its purported goals, the Flexner Report[4] issued in 1910 indicated the supply of physicians was in excess of that required to maintain a high degree of health care. As a result of that report, medical schools began graduating fewer students and instituted programs to better educate those students in attendance. In 1913, the American College of Surgeons (ACS) was organized to improve hospital quality of care through a program of more accurate medical recordkeeping. ACS also favored and promoted a system of staff membership based on merit and organized the various staffs into patterns a precursor to today's hospital department and committees.

Almost 40 years would elapse before the Joint Commission on Accreditation of Hospitals (JCAH) would form in 1952, establishing a system of standards for hospitals. Although its name has been changed to the Joint Commission on Accreditation of Healthcare Organizations (JCAHC), it continues to be the foremost authority in setting forth guidelines for the hospital industry. Today, Joint Commission standards as well as recent legislation and case law provide the foundation for determining the hospital's organization and concomitant responsibilities toward its patients.[2]

Peer review typically is designated as being either voluntary or mandatory. Voluntary peer review often focuses on the reasonableness or necessity of the services provided by the hospital. It commonly is conducted by an entity composed of professionals in the surrounding community, such as a county medical society. Mandatory peer review is necessitated when the hospital furnishes professional services that are financed by the public or government coffers.[5] This can range from the Medicare/Medicaid Conditions of Participation[6] to Peer Review Organizations(PROs).[7] Some sates also require peer review in coordination with workmen's compensation or insurance legislation.[5]

In the eyes of the practicing physician, perhaps the single most important function of the peer review committee is the determination of staff privileges.[2] After the physician is granted privileges by the peer review group operating within the hospital, his/her performance is monitored and evaluated according to established hospital policies and procedures.[8] If his or her conduct is deemed unprofessional, or if he/she provides substandard care, the peer review group can terminate, restrict, or deny his/her privileges or take any other steps necessary to alleviate the problem. The peer review committee also may report its finding to a medical disciplinary licensing board. Therefore, physicians should be alerted to the fact that the peer review process not only is essential to maintaining quality care but also provides an ideal setting for controlling the market in a particular geographic region.

Applicable Antitrust Provisions

Physicians enjoyed virtually absolute immunity from the scrutiny of antitrust provisions until the mid 1970s. At that time, however, the Federal Trade Commission and the courts began to recognize that health care facilities were subject to attack by the antitrust laws.[9] Staff privilege decisions were an area essentially untouched for a time, but the increased number of medical school graduates and the institution of diagnostic-related groups (DRGs) and other cost-containment measures resulted in greater competition, thereby increasing the litigation associated with the process.

There are two federal routes of antitrust attack available to a physician who believes he/she has been denied hospital privileges for illegal reasons. These include a violation of Section 1 of the Sherman Act, and/or a violation of Section 2 of the Sherman Act. Although a favorable verdict for the plaintiff/physician may result in treble damages being awarded under either of these sections, the majority of cases have been decided in favor of the hospital.[9] Of consideration also is the expense required by a physician pursuing such a claim. Proof of an anticompetitive motive by the peer review organization may require extensive discovery methods, numerous depositions, and filing and responding to various motions designed to prolong and thwart the entire judicial process, all of which can prove to be very expensive for the established physician as well as the novice just beginning to practice medicine. To compound the problem, the hospital usually will provide extensive detailed documentation substantiating its decision to revoke or deny the physician's privileges based on his/her credentials, personal character (bedside manner), or treatment skill in general. In sum, the physician must apply the typical cost-benefit analysis when considering pursuing such a claim.

In the past, impediments have prevented the effectiveness of antitrust challenges to hospital privilege denials. The most important one being that courts believed the hospital was in the best position of assessing its employees and, therefore, its (hospital's) decisions should not be questioned.[9] In other words, the courts did not want to act as a "super board of directors" relegated to a role of ruling on every decision

presented to it. Recent changes in the organization of hospitals competitive environment have led to a weakening of such a rationale. Today, the threat of an antitrust suit against a hospital (or its peer review group) is something the hospital cannot dismiss as a mere nuisance.

Section 1 of the Sherman Act provides that "every contract, combination... or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations is illegal."[10] In alleging a violation of this section, three elements must be shown: (1) a conspiracy, (2) a restraint of trade, and (3) a nexus to interstate commerce.[11]

Demonstrating the presence of two or more economically separate entities is the first part of the conspiracy analysis.[11] As a result of the *Monsanto*[12] decision, an antitrust combination requires a conscious commitment to a common scheme. Since staff privileges are required to enable a physician to practice medicine at an institution, medical staff credentialing with attendant approval by the board of trustees can often easily be shown to promote a "common scheme."

The second part requires a showing of restrained trade. This goes hand-in-hand with the analysis discussed in the previous paragraph. Since the decision to deny or revoke staff privileges usually is based on a recommendation to the hospital board of trustees by a group of physicians enjoying such privileges, it would be almost economically prudent for such a group to prevent new ones from obtaining privileges. Thus a scenario ideal for a restraint of trade is established.

Typically two standards are employed when considering a Section 1 violation. The privilege denial may be considered a "horizontal boycott," which occurs when one business entity takes action at the request of a second business entity.[9] If the physician can prove this, then the court will apply a *per se* standard whereby the physician: (1) is relieved of showing harm to the public or a lessening of competition, and (2) the defendant (hospital) is prohibited from introducing evidence supporting the worthy purposes behind such a restraint.[9] The denial also can be considered a *per se* unlawful "exclusive tying arrangement." Such an arrangement exists where a business (hospital) with a market power over a product or service uses that power to require consumer to purchase a different product or service.[11]

Section 2 of the Sherman Act provides that "every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nation, shall be deemed guilty of a felony...."[13] The threshold requirement in a Section 2 case is the determination of the hospital's (peer review group's) market or monopoly power.[11] It can be defined as the power to raise prices and exclude competition in a relevant product/service and geographic market.[11]

Thus, a hospital has market power if it can exclude competition (through a denial of privilege determination) from a particular territory permitting it to alter the competitiveness of the services it offers and preventing other suppliers from entering the same market.[14] An analysis of the relevant geographic market is, therefore, essential when proving a Section 2 violation. The *Robinson*[14] case noted that even if other hospitals are present within the relevant geographic market, a physician can still allege that the defendant hospital maintains a monopoly over some services (particularly if the physician is a specialist).

Interstate Commerce Of practical consideration when contemplating filing an antitrust claim is the requisite proof of a substantial and adverse effect of interstate commerce. Although this will be mentioned during the discussion of cases in the next section, a few ideas will be noted here. First, it is questionable whether a hospital should challenge a complaint based on lack of interstate commerce, because even if the motion is successful the plaintiff/physician will be allowed to amend the complaint and allege further sufficient facts indicating the requisite effect on commerce.[15] Second, an interstate commerce challenge may require a great deal of time and resources that could be better utilized in defending other factual (as well as legal) aspects of the case. However, some cases have proved to be quite successful for a defendant hospital alleging lack of interstate commerce. Therefore, it should not be summarily dismissed as a implausible challenge.

State Action Immunity This appears to be the most likely affirmative defense that will be raised in an antitrust liability suit in the staff privilege arena. This is definitely the murkiest area surrounding the antitrust lawsuit. The state action doctrine, first enunciated in *Parker v. Brown*,[16] holds that activities compelled by the state in its sovereign capacity are immune from antitrust scrutiny. Where the challenged activity is sought to be justified by reference to a regulatory action as opposed to direct legislative compulsion, the restraint must meet a two-part test: (1) it must be "clearly articulated and affirmatively expressed as a state policy," and (2) the policy must be "actively supervised by the state itself."[17] Again, we will discuss this further in relation to particular cases. Suffice to say that although the two-part test seems superficially definite in its terms, it gives juries and judges a tremendous amount of discretion. While some courts have focused on the first part of the test, other courts have focused entirely on the second part. Regardless, it remains the major shield of armor for the hospital/peer review group facing antitrust litigation. One writer in 1986 noted, however,

> It is unlikely that staff privilege decisions will ever meet the test of *Parker v. Brown* immunity. Most states do delegate regulation of hospital conduct to health departments which promulgate rules designed to assure that hospital medical staffs are composed of quality providers. However, these regulatory schemes do not direct hospital to exclude physicians for reasons unrelated to their competence -- the only kinds of decisions which will be found anticompetitive under the antitrust laws. Since such anticompetitive exclusions are not a

matter of state policy they should not enjoy *Parker v. Brown* immunity.[11]

Although the logic employed in such a statement may seem convincing on the surface, it has clearly been disproved by recent decisions handed down by various circuit courts.

In light of the above, one writer notes several suggestions that should minimize the risk of antitrust liability surrounding peer review decisions:

1. The governing board should play an active role in staff privilege decisions, and that role should be documented. Moreover in light of *Weiss v. York Hospital*, the hospital rather than the staff should be the real decision maker.
2. The medical staff should only make decisions regarding competence and conduct qualifications. The board should make decisions regarding the other relevant variables, especially the decision about the need for the applicant's services.
3. Administrative officials at the hospital should monitor credentialing procedures to ensure that no staff member is pursuing an independent personal stake or an anticompetitive "joyride."
4. The administration should ensure that the medical staff bylaws are strictly followed, and should ensure that the credentialing procedure is fair. While the antitrust laws do not require that an applicant be granted due process,[18] a biased procedure can have a number of adverse practical ramifications, such as serving as circumstantial evidence of a conspiracy and an anticompetitive intent.
5. Where a termination of privileges occurs, the hospital should find a replacement.
6. The hospital should minimize the role of the applicant's direct competitors in the credentialing process, so that the competitors do not participate in the actual decision making.
7. The adverse input of an applicant's competitor should be subject to cross-examination or rebuttal.
8. The reasons for the governing board's ultimate decision (assuming that the reasons are not anticompetitive) should be well documented.
9. The hospital's attorney should be consulted immediately whenever the staff's recommendation is adverse to the applicant
10. The hospital should attempt to insure itself against antitrust risk. (See Health Care Quality Improvement Act, below, regarding this issue).

Cases Involving Peer Review and Associated Antitrust Liability

Cases Prior to Patrick Although the *Patrick v. Burget* case is the predominant case in the area of peer review associated antitrust liability, it is necessary to understand its predecessor cases to determine its precedential effect, if any. These cases, and others cited, have focused on varying aspects of antitrust (interstate commerce requirement for jurisdictional purposes, state action immunity, etc.), but predominantly have exonerated the defendant hospital or peer review group involved. A review of these cases will show, therefore, that the *Patrick* decision should be considered unique and an anomaly.

One of the first important cases regarding the denial of clinical privileges is *Marrese v. Interqual.*[19] In *Marrese*, an orthopedic surgeon filed suit alleging various defendants had conspired to restrain trade, violative of Section 1 of the Sherman Act, and had monopolized the market for orthopedic and neurological procedures in the Evansville, Indiana area, violative of Section 2 of the Sherman Act.[19] The court in a somewhat lengthy decision held that the state action doctrine immunized the defendants from any antitrust liability.[19]

Of more significance than the actual decision is the analysis the court employed. First, the court addressed the requisite finding of interstate commerce needed for antitrust jurisdiction. The Supreme Court, in *McLain,*[20] established the standard as "the defendants' activities must be shown as a matter of practical economics to have a not insubstantial effect on the interstate commerce involved."[21] In finding interstate commerce present in *Marrese* the court notes several factors including:

1. Dr. Marrese treated out-of-state patients;
2. Dr. Marrese purchased medicine, equipment, etc. from out-of-state suppliers;
3. Dr. Marrese derived revenues from Medicare, Medicaid and out-of-state insurance companies;
4. Revocation of his privileges would prevent him from practicing orthopedic medicine in Evansville, Indiana or anywhere in the United States.[22]

The Court then considered the defendant's conduct in recommending Dr. Marrese's clinical privileges being revoked.[22] The court discussed several sections of the Indiana Code that addressed the peer review process in light of the state action doctrine.[23] The court when considering the first part of the *Parker* test ("clearly articulated and affirmatively expressed state policy") noted that the State of Indiana mandated "hospital medical staffs . . . to form peer review committees . . . to review the quality and necessity of the care provided patients, to evaluate the qualifications of staff members, and review the merits of any recommendation against a staff member," thus satisfying the first element of *Parker.*[24] Regarding the "active supervision" prong of the *Parker* test, the court found two entities (the Hospital Licensing Council of the State Board of Health and the Indiana Medical Licensing Board) operating within Indiana that it felt insured Indiana citizens of quality medical care and "actively supervised" the medical peer review process.[25](NOTE: Remember this regulatory scheme when *Patrick* is dis-

cussed below. The court there failed to find "active supervision" with similar entities present.)

The *Marrese* court further noted that "subjecting members of the peer review process to a federal antitrust lawsuit would chill the rights and obligations of physicians to participate in peer review.[25] It also cited the *Pontius v. Childrens Hospital* decision which declared,

> if individual physicians, who manage to overcome their traditional reluctance to testify about the professional conduct of a colleague, know that by so doing they risk incurring legal fees running into six figures and a trial of a duration measured in months, on the mere allegation that they have conspired to restrain trade, the discovery of incompetent physicians will be rendered extraordinarily difficult.[26]

This is one factor that the Supreme Court neglected to consider important or give great deference to in *Patrick*. In conjuction with these notions, the *Marrese* court found,

> As a matter of judicial economy, the Federal courts must not be further burdened by complex antitrust litigation when the alleged illegal conduct is mandated and supervised by the state and, furthermore, the plaintiff is afforded the due process safeguards of hearings and state court review.[27]

This, in my opinion, is the logical rationale surrounding the peer review process.

Another significant case decided prior to *Patrick* is *Posner v. Lankenau Hospital*,[28] which was decided subsequent to *Marrese*. The physician in *Posner* alleged violations of Section 1 of the Sherman Act and Pennsylvania's common law prohibiting unreasonable restraints of trade (our discussion will concentrate on the former). The court found the defendants were not immune from antitrust liability via the state action doctrine.

In considering the first prong of the *Parker* test, the court cited various sections of the Department of Health regulations that required health facilities to have an organized medical staff and also established its duties.[29] It noted other regulations that delineated duties of the medical staff and credentials committees.[30] The court, however, noted that none of the regulations governing the health facilities expressly permitted anticompetitive conduct.[31] It stated,

> Allowing medical staffs to make hospital staffing decisions based on professional or ethical grounds is not tantamount to an approval of anticompetitive conduct. That some medical staffs may be able to engage in anticompetitive conduct while in compliance with the Pennsylvania regulatory scheme does not necessarily demonstrate that the legislature intended to permit such conduct.[31]

In distinguishing *Marrese*, the court found that the *Marrese* court never determined the issue of whether Indiana law clearly expressed an intent to permit anticompetitive conduct. Although this may appear to be true, the *Marrese* court seems to have the more realistic approach to the first prong of the *Parker* test. It appears that it, unlike the *Posner* court, would retreat from a direct verbatim statement of state policy permitting anticompetitive conduct. That, in my opinion, is the better approach since it is doubtful any legislature when enacting a law will state in its legislative history (or elsewhere) that its intent is to foster anticompetitive conduct. Therefore, I believe the *Posner* rationale is fatally flawed.

The last of the cases decided before *Patrick* that will be mentioned is *Quinn v. Kent General Hospital*.[32] In *Quinn*, an orthopedic surgeon filed suit after the defendant hospital refused to admit him to its active medical staff. The gravamen of his complaint focused on the assertion that the aforementioned refusal to staff constituted a "group boycott" in violation of Section 1 of the Sherman Act and an unlawful monopolization in violation of Section 2 of the Sherman Act. The court here found that the defendant's actions were not immune from antitrust.

In assessing the jurisdictional requisite of interstate commerce, the court noted that Dr. Quinn has alleged sufficient facts to demonstrate its presence. However, when it addressed application of the state action doctrine it found that the issue was "not whether Delaware had adapted a clearly articulated policy of promoting the medical peer review process, but whether the legislature intended to displace competition in the market for hospital facilities.[32] The court did retreat from the *Posner* rationale stating,

> [i]t is true that the clear articulation test does not require that the legislature expressly state in a statute or its legislative history that it intends for a delegated action to have anticompetitive effect.[32]

But it noted there was nothing in Delaware statutes that hinted the peer review process would be promoted by conferring a monopoly on those serving on peer review committees.[32] Although the result reached here is still difficult for me to digest, the reasoning is more logical. Of particular significance is the statement by the court,

> Where the state itself acts and does not merely authorize conduct by private parties or municipalities, there is no reason not to suppose that the state intended the consequences of this action. In the present case, however, it is not the State of Delaware itself that has acted, but a private hospital and its credentials committee. In such cases, the Court must inquire whether the state did, in fact, intend to authorize anticompetitive conduct. Because there is no indication that the Delaware peer review statute was intended to displace competition, the court concludes that the conduct of the Hospital and its credentials committee is not immune from liability under the Sherman Act.[32]

The decision, however, departs from the traditional reasoning expressed in *Marrese* - which tends to promote the peer review process.

In sum, these three cases focus on various aspects of antitrust liability (jurisdiction, *Parker* immunity). Their final decisions, however, appear to revolve around the importance they place on state governing bodies and the promotion of effective peer review. Although I do not agree with all the decisions, many of the arguments are quite persuasive.

Patrick v. Burget In *Patrick*,[32] a physician claimed that members of peer review committee (many of whom were also members of a competing medical clinic) had attempted to deprive him of privileges, thereby violating Sections 1 and 2 of the Sherman Act. A district court jury in Oregon found in favor of Dr. Patrick, but the United States Court of Appeals for the Ninth Circuit reversed, finding the conduct of the defendants exempt under the state action doctrine.[33] The Supreme Court of the United States in a unanimous decision reversed, and awarded Dr. Patrick over $2.2 million in antitrust treble damages as established in the lower district court proceeding. Although the decision appears to impart considerable liability upon physicians participating on peer review committees, it should be noted that: (1) the case arose in a geographic area where there was essentially no competition for health care services, (2) the peer review committee evaluating Dr. Patrick's standard of care did not exercise "good faith," and (3) the court examined only the statutory protection available to practitioners sitting on committees in Oregon.

Patrick arose in the small town of Astoria, Oregon, having a population of only 10,000 people. Astoria Clinic, with which many of the peer review physicians were affiliated, had a monopoly on all physician services until Dr. patrick began his independent practice. Also, Columbia Hospital was the only hospital within a 50-mile radius.

This geographic environment contributed to egregious conduct by Clinic physicians against Dr. Patrick. Dr. Patrick received essentially no surgical referrals from the competing Astoria Clinic physicians. If he treated a "Clinic patient," the clinic doctors would react angrily. Clinic surgeons refused to enter into cross-coverage agreements with Dr. Patrick that would provide care for each other's patients if one of the doctors was unavailable.

Although these facts alone probably would have implicated the Clinic physicians in an anticompetitive scheme, there was also incontrovertible evidence that the peer review process was conducted in "bad faith." In this regard, it is important to realize that: (1) a Clinic partner chaired the committee of the Oregon Board of Medical Examiners that evaluated Dr. Patrick's cases, (2) typically Clinic physicians were involved in reporting Dr. Patrick's alleged substandard care, and (3) a Clinic physician chaired the committee from which Dr. Patrick sought review after his privileges had been revoked. The Court of Appeals, in analyzing such conduct by the physicians characterized it as "shabby, unprincipled, and unprofessional."[33]

The court, in *Patrick*, found that the "active supervision" requirement was not satisfied. In so doing the court noted that monitoring by two state agencies (the Oregon Board of Medical Examiners and the Health Division) would not satisfy the requirement. The court stated that the former only had the ability to recommend further disciplinary action and the latter to deny, suspend, or revoke the hospital's license. State officials, according to the court, must have and exercise power to review particular anticompetitive acts of private parties and disapprove those that fail to accord with state policy.[1]

The lower court[34] reached an entirely different conclusion. That court placed emphasis on the fact that any hospital decision terminating or restricting privileges was judicially reviewable. It found that Oregon courts had reviewed adverse privilege decisions to determine if they were made in good faith pursuant to fair procedures and were supported by the facts. The court determined that a combination of internal review by the hospital itself, review by the Board of Medical Examiners, and review by the court constituted "active supervision."[34] The Court of Appeals found that Indiana's scheme of medical peer review, as addressed in *Marrese*, was nearly identical to that existing in Oregon. It also distinguished the Quinn decision (discussed earlier) noting,

> The peer review process allows doctors to agree to eliminate a competitor from the market because they believe his or her product is substandard. An analogous scheme would allow GM, Chrysler, and Ford to review the safety of Toyotas to determine if the public should be allowed to drive them . . . The fact that the state's regulations may be wise and in the best interest of consumers does not alter the fact that the regulations limit fee competition.[34]

The 9th Circuit decision also discussed the issue of "bad faith." The court found that once the state had enacted a system replacing competition with regulation, federal antitrust laws are displaced and the subjective underlying motivations of the actors are not considered.[34] The court also stated that although the Oregon statute only immunized "good faith" conduct, it did not alter the fact that the actions challenged were those of the state. The court in this regard, doubted that a state would ever authorize a per se "bad faith" action.[34]

The Supreme Court decision appears to be the most flawed in its discussion of the judicial review available to disgruntled physicians who receive adverse privilege determinations. It found that no statute expressly authorized judicial review and found no cases where an Oregon court has determined that such judicial review was available to disgruntled physicians who receive adverse privilege determinations. It found that no statute expressly authorized judicial review and found no cases where an Oregon court had determined that such judicial review was available. The court further noted that even if judicial review were accorded, it would be of very limited nature. The Court of Appeals decision appears to be more realistic.[35]

In sum, the Court of Appeals decision demonstrates the more logical approach to privilege determinations, as well as the approach that will most likely encourage continued effective peer review. The Supreme Court decision suggests that future rulings will depend on the statutory scheme present in the respective state where the action is instituted. It also appears to keep alive the idea that judicial review *may* constitute adequate state supervision.

Cases Subsequent to Patrick An analysis of recent case law demonstrates that the *Patrick* decision has not received the acceptance envisioned. Ironically, both the below-mentioned cases following the *Patrick* decision were decided within a day of each other. However, the complaints in each were dismissed or disallowed for different reasons.

In *Bolt v. Halifax Hospital Medical Center,*[36] the Eleventh Circuit Court of Appeals refused to award damages to a physician who filed suit against three hospitals, a local county medical society, and numerous physicians in the Daytona Beach area in Florida. Dr. Bolt had alleged that the defendants had conspired to restrain trade in violation of Section 1 of the Sherman Act.

The court, in considering the presence of three conspiracies, noted that the hospital and member of its medical staff were legally capable of conspiring with one another, although other courts had ruled contrariwise.[37]

In regard to the two-pronged *Parker* test, the court found that a clearly articulated policy condoning the peer review process existed under Florida statutory law.[38] The court made reference to three statutory provisions,[39] one of which stated that "[n]o action shall be taken [by the hospital's governing board] without prior referral to the medical staff for their recommendation."[40] The court deemed these sections sufficient in satisfying the first prong.

The court experienced difficultly, however, when considering the second ("active supervision") prong. It noted the presence of the Florida Board of Medical Examiners (which did not have the power to overturn peer review decisions) but stated that the state judiciary could serve as the supervisory authority. It found that the *Patrick* decision had left that question unanswered. The court stated

> We perceive no principled basis for distinguishing traditional judicial review from agency review, however. The purpose of the active state supervision requirement is to ensure that the conduct in question is in fact the product of state regulation.
> ....
> Of course, judicial review cannot constitute active state supervision unless it is available on an established basis and is of a sufficiently probing nature. To be sufficiently probing, the scope of judicial review must first of all encompass the fairness of the procedures used in reaching the decision. Furthermore, it must involve consideration of whether the criteria used by the decision makers were consistent with state policy and whether the decision had a sufficient basis in fact.[41]

Therefore, the court in *Bolt* took *Patrick* one step further in its analysis. Since *Patrick* left open the question of judicial supervision satisfying the second prong of *Parker*, the *Bolt* court seized the opportunity to use it as justification for upholding the conduct of the peer review organization. Of significance also is the fact that "bad faith" was not demonstrated to the degree shown in *Patrick*, if at all.

Finally, the *Mitchell v. Frank R. Howard Memorial Hospital*[42] case revived the interstate commerce requirement issue. In *Mitchell*, a radiologist alleged violation of section 1 of the Sherman Act after the hospital terminated its agreement with him and subsequently contracted with another radiologist to provide the services. The court here did not even reach the question of state action immunity noting that Howard Memorial Hospital did not significantly affect interstate commerce; therefore, federal antitrust laws were inapplicable. The court, citing *Hospital Building Co. v. Rex Hospital Trustees,* [43] noted,

> determinations of [Sherman Act] jurisdiction [in hospital cases] are based not merely upon revenue figures, but on a broad aggregate of factors including proximity of the facility to regional centers of commerce or to other states, treatment of significant numbers of out-of-state patients, purchase of equipment and supplies from interstate sources and interstate transfer of payment for patient care.[44]

The court acknowledged the facts established by Dr. Mitchell,[44] but found that the activities did not substantially affect interstate commerce.

In sum, the cases after *Patrick* indicate that it may not have received the judicial acceptance feared by hospitals and peer review organizations operating within them. The *Bolt* and *Mitchell* cases point out avenues still available in upholding the sanctity of peer review decisions if they are made in "good faith." *Bolt* focuses on state judicial review, whereas *Mitchell* provides an alternative defense/justification for the rural hospital whose effect on interstate commerce is shown to be negligible.

The Health Care Quality Improvement Act

Passed in 1986, the Health Care Quality Improvement act[45] (hereafter HCQIA) is designed to provide additional immunity to persons or entities participating in or providing information to peer review organizations. The legislative history of the HCQIA indicates it "is to improve the quality of medical care by encouraging physicians to identify and discipline other physicians who are incompetent or who engage in unprofessional behavior."[46] The HCQIA was passed in a large part as a result of the *Patrick*[1] case discussed above. Physicians conducting peer review activities felt they may be exposed to damage suits by physicians who, after losing their hospital privileges, would contend that the peer review action was performed under the guise of violating the physician's legal rights.[47] It was hoped that the HCQIA would alleviate those concerns, thus promoting a more effective peer review system. Although Congress noted that medical malpractice was a growing phenomenon, it did not directly address that problem in the HCQIA.[46] Rather than addressing physicians' fear of becoming embroiled in malpractice litigation as a result of their peer review participation, the HCQIA focuses on disposing of the fear of being a defendant in a suit brought by a reviewed physician. [2]

The HCQIA is comprised of three major aspects. First, the HCQIA provides a federal immunity to hospitals and physicians who participate in the peer

review process if certain due-process guidelines are followed. Second, the HCQIA creates a national depository in which medical malpractice insurers, hospitals, and state medical licensing boards must report settlement claims and corrective actions taken against any physician. Third, hospitals planning to hire new physicians must make an inquiry to the aforementioned depository to determine if he or she is in good standing and also must make an inquiry to the depository every two years regarding each physician who has been granted clinical privileges.[47]

Many states have enacted statutory privileges to protect peer-review practitioners from civil liability suits,[2] but the statutes vary as to the degree of immunity provided (qualified to absolute). Also, statutes may require that the peer review be conducted in "good faith," in a reasonable manner, or without malice.[2] It was envisioned by its drafters that the HCQIA would provide a more uniform standard to be followed. The HCQIA does contain some troublesome areas and its benefits may be more symbolic than substantive.[48]

Provisions of the HCQIA Subchapter I of the HCQIA is designed to eliminate many of the deterrents associated with peer review with the underlying motive of improving physician competence and conduct.[8] It provides immunity under both federal and state laws from damage suits against peer review groups and individuals.[49] HCQIA does provide an exception, however, for certain civil right actions but does not preclude Clayton Act antitrust suits being brought by the United States or a State Attorney General.[49] The HCQIA further protects the person who provides information to the peer reviewing entity unless he/she knowingly provides false information.[50]

The grant of immunity established in the HCQIA is founded upon two required showings: (1) the sufficient due-process protections were accorded to the physician under review and (2) that the peer-review group conducting the review and examination process based its recommendation of any disciplinary actions on the belief that it would further the quality of health care at the institution.[51] Of significance, however, is that the HCQIA does not prevent a physician from seeking alternative remedies from a peer-review group's actions such a declaratory or injunctive relief.[2] To qualify for protection, the professional review action must be taken

> 1. in the reasonable belief that the action was in the furtherance of quality health care,
> 2. after a reasonable effort to obtain the facts of the matter,
> 3. after adequate notice and hearing procedures are afforded to the physician involved or after such other procedures as are fair to the physician under the circumstances, and
> 4. in the reasonable belief that the action warranted by the facts. known after such reasonable effort to obtain facts and after meeting the requirement of paragraph (3). [52]

It should be noted that the terms "reasonable belief" are used instead of "good faith" standard. In addressing this issue, the Energy and Commerce Committee noted that "good faith might be misinterpreted as requiring only a test of the subjective state of mind of the physicians conducting the professional review action."[2] The Committee also stated that "this [reasonable belief] standard will be met in the overwhelming majority of professional review actions." Therefore, the "reasonable belief" standard should prevent an objectively vindictive peer-review group from obtaining the protection of the HCQIA.[2]

Health care entities must also assure that their peer-review procedures comport with the fair hearing standards and notice requirements set forth within the HCQIA.[53] The HCQIA delineates what the drafters considered to be "adequate" notice and hearing procedures, though they appear merely to mirror due-process guidelines that every hospital should provide in their medical staff bylaws. The HCQIA details that the physician shall be provided with (1) notice of the proposed action, (2) notice of the hearing, and (3) the conduct of the hearing and notice.

Of particular significance in light of the *Patrick* decision, discussed above,[1] is the fact that the HCQIA enables the physician under review to request a hearing before (a) a mutually accepted arbitrator, (b) a hearing officer appointed by the entity and not in direct economic competition, or (c) a panel appointed by the entity not in direct economic competition.[54] This provision is aimed at removing the temptation from peer-reviewing groups of engaging in unlawful anticompetitive conduct and designating it as a legitimate peer review function.[2] The [Energy and Commerce] committee did note that such a process may create hardships of economies,[46] but felt such a system was necessary to insure fairness and an unbiased decision.

Another significant provision in Subchapter I is the section that provides the payment of reasonable attorneys' fees and costs in defense of a suit deemed "frivolous, unreasonable, without foundation, or in bad faith."[55] Although the [Energy and Commerce] Committee made no mention of this section in its report, it appears it is intended to deter those incompetent physicians who have been refused clinical privileges from tying up valuable court resources by pursuing unfounded claims of antitrust or interference with contractual obligation claims.[2]

Subchapter II requires a variety of entities to report malpractice payments and settlement as well as certain disciplinary actions against physicians to a national data bank, which as of this date is still not operative. A major impetus behind the drafting of this national depository of information was that Congress believed a centralized agency was needed to better chart the movement of physicians across the country. Physicians dismissed from one hospital because of incompetence or inadequate skill could move to another location with relative ease and resume the practice of medicine as if nothing had happened. This was a major concern for hospitals who often are drawn into lawsuits through application of respondeat superior or the negligent hiring of an employee. Thus, some method was needed to insure that patient would

continue to receive the type of quality health care they deserved.

Local peer review has shown success in alleviating the problem at the individual hospital where the physician practices, but once the doctor has his/her privileges removed at such an institution his/her threat to the patient population is removed and often no follow-up of the doctor is maintained. This type of system results in a chaotic scheme of incompetent physicians continually relocating after dismissal only to reappear on the doorstep of an unsuspecting hospital a short time later. Such a system has two basic flaws: (1) there is no national tracking device for the movement of physicians (particularly incompetent ones), and (2) peer-review committees who have ruled against physicians whom they consider incompetent are exposed to a variety of lawsuits including antitrust, defamation, and interference with contractual obligations.[2]

Typically, state licensing boards or national professional organizations (such as the AMA) were vehicles for controlling the movement of incompetent physicians,[2] but these institutions have had only a small impact on a growing problem. A major reason underlying such a dismal showing by these groups is the inconsistency and unpredictability of their decisions.[2]

To attack the problem of the relocation incompetent physicians, the HCQIA requires health care entities to report their findings to their state's Board of Medical Examiners.[56] Such a report is required if the health care entity

> (A) takes a professional review action that adversely affects the clinical privileges of a physician for a period longer than 30 days;
> (B) accepts the surrender of clinical privileges of a physician-
> i) while the physician is under an investigation by the entity relation to possible incompetence or improper professional conduct, or
> ii) in return for not conducting such an investigation or proceeding; or
> (C) in the case of such an entity which is a professional society, takes a professional review action which adversely affects the membership of a physician in the society.

It is significant that HCQIA requires the reporting of voluntary resignations, because often physicians will attempt to "plea bargain" their resignation in return for the dismissal of any charges brought against them.[2,46] The term, "adversely affects" should provoke a tremendous amount of litigation.[57] Although it is defined as including "reducing, restricting, suspending, revoking, denying, or failing to renew clinical privileges or membership in a health care entity,"[57] physicians probably will be compelled (if not encouraged by their attorneys) to litigate every purported change in position as it could be deemed adversely affecting their privileges.

Perhaps the most important feature of this Subchapter of the HCQIA is that information obtained by each state's Board of Medical Examiners is forwarded to the Secretary of Health and Human Services.[57] In further support of the effective reporting requirement, state boards also are required to report any sanctions they impose such as a censure, reprimand, etc.[57] The information reported must include

> (A) the name of the physician involved,
> (B) a description of the acts or omissions or other reasons (if known) for the revocation, suspension, or surrender of license, and
> (C) such other information respecting the circumstances of the action or surrender as the Secretary deems appropriate.[57]

The legislative history notes regarding the information to be reported that [I]t does not necessarily require an extensive description of the acts or omissions or other reasons for the action or, if known, for the surrender. It does, however, require sufficient specificity to enable a knowledgeable observer to determine clearly the circumstances of the action or surrender.[46]

The HCQIA also requires the reporting of medical malpractice payments.[58] These payments include settlements, partial settlements, or satisfaction of judgments related to malpractice actions or claims. The HCQIA requires that the party actually making the payment, whether it is the hospital, insurance company, etc, must report the information to the Secretary. the information required to be reported includes

> (1) the name of any physician or licensed health care practitioner for whose benefit the payment is made,
> (2) the amount of the payment,
> (3) the name of any hospital with which the physician or practitioner is affiliated or associated,
> (4) a description of the acts or omissions and injuries or illnesses upon which the action or claim was based, and
> (5) such other information as the Secretary determines is required for appropriate interpretation of information reported under this section.[58]

The HCQIA insures the reporting of information by imposing sanctions on those entities failing to comply with its requirements. Such sanctions may include civil money penalties of not more than $10,000 or the loss of immunity for the institution as provided in the act itself.[58]

To justify such a conglomeration of facts and data, the HCQIA requires that hospitals utilize the information available in the national depository before attempting to hire any new physicians. Thus, the hospital is endowed with two duties regarding clinical privileges

1. to check the data bank before granting privileges,
2. to check the data bank every two years.[58]

In the event the hospital fails to comply with these requirements it will be presumed that it has implied knowledge of the information,[58] which could prove to be devastating in a malpractice action.

In conjunction with the litigiousness surrounding the definition of "adversely affecting," Congress realized another corresponding potential problem area. As was noted in the legislative history, "Many people in the medical field told the Subcommittee on Health and the Environment that the reporting system would

inevitably result in an enormous increase in litigation. The reason: faced with the certainty that they can no longer hide their past records, physicians facing disciplinary action will feel compelled to challenge vigorously any action taken against them. Based on recent experience (probably referring to the *Patrick* case), the Committee believes many of these physicians will file antitrust lawsuits.[46] Although the HCQIA attempts to redress this issue in numerous ways (such as general limitations of liability), it is questionable whether the desired elimination of antitrust claims is accomplished.

The HCQIA: Will it Help? Although the HCQIA, when considered in its entirety, has some advantages over the more traditional state-regulated peer-review process, it leaves several questions unanswered - two of which were discussed above. The reporting system envisioned by the HCQIA may result in fewer incompetent physicians practicing medicine, but it appears that it will involve a mass of data that more likely than not will be difficult to access or simply will be too confusing to understand. Another drawback to the HCQIA is that states are given the choice of whether to opt-in or opt-out of its confines.[59] If an individual state declares through its legislature that it intends to "opt-out," the inconsistency of peer review throughout the nation will be perpetuated.[2] Although the HCQIA does allow an opt-out of the liability provisions, states must still participate in reporting scheme establishes. In light of this, physicians could face a dilemma in states where liability is not limited: they will violate the HCQIA if they do not publish information regarding incompetent physicians, but if they do report the required information, they may face litigation from physicians sanctioned.[2]

Another potential problem involves the hearing committee, which is to be composed of individuals who are no in "direct economic competition" with the practitioner being reviewed.[60] Such an ambiguous term obviously will lead to a multitude of cases that will be fact-specific focusing on such things as the type of physician involved, his specialty or specialties, the area where he practices, the specialties of those reviewing him, etc. As one writer notes,

> It is difficult to judge how strictly the standard must be interpreted in evaluating potential members of a hearing panel. Unless the regulations provide clear and helpful guidelines, this ambiguity seems certain to spawn considerable litigation, as attorneys for disciplined physicians attempt to find and exploit a loophole allowing them to override the immunity otherwise established by the Act.[48]

In sum, the HCQIA is not the cure-all Congress intended it to be. Although it provides guidelines for hospitals to follow when conducting peer review, it appears to simply codify basic due-process rights that peer review committees traditionally have followed in the majority of cases. Its vague definitional framework and its absence of effect on "bad faith" peer review and antitrust seem to thwart the intended goals supporting its passage by Congress.

Protection via Insurance Coverage When considering the protection of peer review activities by insurance policies one treatise notes

> Insuring against the risk of antitrust liability for corporate officers and directory should be permissible. Such an agreement does not seem to be against public policy and should, therefore, be enforceable. Such insurance may not be available, however.[61]

Most hospital liability insurance policies neither expressly include nor expressly exclude provisions covering antitrust damages. Courts, however, when interpreting the general coverage provided in professional or business liability policies have allowed the coverage of antitrust damages.[62] The degree of policy coverage depends not only on the language utilized but also on the type of policy under consideration.[63] The four types of policies typically employed and applicable include personal, corporate, professional, and directors-and-officers.

Personal Policies Although personal insurance (homeowner's coverage) may provide coverage for claims related to "personal injury" (false arrest, slander, defamation, invasion of privacy, etc.), it usually provides no coverage for acts performed as an employee or representative of a hospital.[63] Claims frequently excluded in personal policies are:

> 1. Business pursuit (partnerships, solely owned businesses, corporate liability, joint ventures, or the rental or holding for rental of any part of any premises by any insured).
> 2. Punitive or exemplary damages.
> 3. Damage to persons or property that is expected or intended by the insured.
> 4. The rendering or failing to render professional services.[63]

Hospital Professional Liability Policies This type of insurance appears to be the most likely place where antitrust liability coverage would be found. These policies generally protect the hospital from claims such as:

> 1. Medical, surgical dental, nursing and other health care and ancillary services, including food and beverage.
> 2. Activities of board and committee members.
> 3. Members of medical or professional staff committees, including committee members aiding in evaluations of qualifications for hospital privileges.

The individuals ordinarily described in the policy's "Definition of Insured" include officers and directory, volunteer, and members of committees.[63]

Directors and Officers Liability Policies These policies typically allow a hospital corporation (for-profit or not-for profit) to insure its liability, if found, to indemnify its officers and directors from any litigation or settlement expenses. Coverage customarily is provided to officers and directors for matters associated with their service as an officer or directory for omissions, misstatements, etc.[63] One problem associated with these policies is that they often exclude indemnification for fines or penalties imposed by law, which may prevent their use in a case involving trebled antitrust damages.[63]

Hospital General Liability Policies The two most prevalent types of hospital general liability policies are (1) the Farmer's/Truck Insurance Exchange and (2) the Professional Hospital Policy of St. Paul Fire and Marine Insurance Company. The former typically covers Hospital and professional services designated as:

> activities for any person as a member of a board or a committee of the insured, as a member of any committee of the medical or professional staff of the insured, as a person communication information to the insured or its medical or professional staff for the purpose of aiding in the evaluation of the qualifications.[63]

The insured (people covered by the policy) typically include a wide range of individuals such as:

> any person as a member of a board or any committee of the insured, as a member of any committee of the medical or professional staff of the insured, as a person communicating information to the insured or its medical or professional staff for the purpose of aiding in the evaluation of the qualifications, fitness, or character of an applicant for membership or privileges on such medical or professional staff or for purposes of initiating corrective action.[63]

The St. Paul policy typically employs language providing coverage for "the actions of any formal accreditation board or any similar board in the hospital" or "the actions of those charged with carrying out such board or committee directives."[63] The insureds protected in the policy often include committee or board members to the extent of "claims resulting directly from their duties as members of such committees or boards."[63]

Limits on Insurability and Cases Some state legislatures that have passed acts prohibiting insurance coverage for activities such as malicious or wilful conduct may thereby exclude overage for claims based on an antitrust theory.[63] A strong public policy argument is provided as explanation by these courts when ruling in such a manner. It is believed the insured will be deterred from such future criminal or civil actions only if the costs/penalties are borne by him/her alone.

Two cases that have dealt with the issue of insuring against antitrust liability are *Jefferson-Pilot Fire and Casualty Co. v. Boothe, Prichard & Dudley*,[64] and the *St. Paul Insurance Companies v. Talladega Nursing Home, Inc.*[65] The former case involved a tying arrangement violative of section 1 of the Sherman Act. In finding the violation insurable, the court noted that the policy excluded coverage only for "any dishonest, fraudulent, criminal or malicious act or omission of the insured."[66] In the latter case *St. Paul*, the court determined that the Alabama public policy prohibited insurance against intentional or willful wrongs, thereby prohibiting insuring against an antitrust violation. The court, therefore, held that the insurer (St. Paul) had no obligation to defend a nursing home against a monopolization suit by a competitor. A third case, now pending in the courts, is *Harris v. Continental Casualty and Truck Insurance Company*,[67] which involves one of the defendants in the *Patrick v. Burget* case (mentioned *supra*). At issue is the scope of coverage provided by the Truck Insurance Exchange's policy, which did not expressly provide coverage for antitrust arising out of peer review.

Conclusion

Most physicians and health care administrators are aware of the recent Supreme Court decision of *Patrick v. Burget*, but they should not be overly alarmed about its outcome. The *Patrick* case clearly was decided on a egregious set of facts that pertained only to the statutory scheme of peer review existing in Oregon. The *Patrick* decision should not chill physicians' willingness to participate in the peer review process. Its result is far from predictive of liability in the vast majority of cases. The recent *Bolt* and *Mitchell* decisions demonstrate that the courts will continue to protect those physicians who exercise "good faith" while participating on peer-review committees.

Most hospitals have excellent peer-review processes operating within their facilities. However, it is recommended that peer-review groups consult with the hospital's board of trustees to consider whether some form of the HCQIA due-process guidelines is available to medical staff members and whether the hospital's insurance coverage would provide antitrust protection to peer-review participants. Each hospital also should consider case law and statutory law regarding what protection is available to peer review participants within their particular state. These recommendations are not suggested to frighten peer-review participants about possible liability but to prevent that rare occurrence. Peer review serves a vital function in the hospital assuring quality care, and physicians who participate on these committees should make sure that this necessary function continues to be performed.

References

1. *Patrick v. Burget*, 108, S.Ct. 1658, 100 L.Ed.2d 83 (1989). For a further discussion of *Patrick* see - Comment, *Patrick v. Burget: The State Action Doctrine and Bad Faith Peer Review*, 1988 Va.L.Rev. 609, and Comment, *The Medical Review Committee Privilege: A Jurisdictional Survey*, 1988 N.C.L.Rev. 179.
2. Note, *The Health Care Quality Improvement Act of 1986: Will Physicians Find Review More Inviting?*, 74 Va. L. Rev. 1115 (1988).
3. Comment, *Medical Peer Review Protection in the Health Care Industry*, 1979 Temp. L. Q. 552, 554.
4. Flexner, *Medical Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching* 3-4 (1910).
5. Borsody and Tiano, *Peer Review and the Antitrust Laws: An Analysis and a Proposal*, 26 St. Louis U. L. J. 511 (1982).
6. 42 U.S.C. Sec. 1395x(k), (r), (s) (1982) and 42 U.S.C. Sec. 1396a(a) (19), 26 (1982).
7. See 49 Fed. Reg. 14977 (1984) and 49 Fed. Reg. 29026 (1984) (revised rules for Peer Review Organizations).
8. Comment, *Physisician, Heal Thyself: Because the Cure, the Health Care Quality Improvement Ace, May be Worse Than the Disease*, 1988 Cath. U.L.Rev. 1073, 1081.
9. Comment, *Denial of Open Staff Hospital Privileges: An Antitrust Scrutiny* 1982 St. Louis U.L.J. 751 (citing Rosoff, *Antitrust Laws and the Health Care Industry: New Warriors into an Old Battle*, 23 St. Louis U.L.J. 446, 481 app. (1979).

10. 15 U.S.C. Sec. 1.
11. Fishbein, are Staff Privilege Antitrust Actions Becoming the "Dealer Termination" Actions of Health Care?, in Antitrust in the Health Care Field pg. 3 (January 15-17, 1986) (National Health Lawyers Association Conference in Washington, d.C. seminar material [hereinafter Fishbein].
12. *Monsanto Co. v. Spray-Rite Services Corp.*, 104, S.Ct. 1464 (1984).
13. 15 U.S.C. Sec. 2.
14. *Robinson v. Magovern*, 521 F.Supp. 842 (W.D. Pa. 1981).
15. Miles, *Antitrust, Hospital Staff Privilege Decisions and Hospital Joint Ventures*, 17 U. Tol. L. Rev. 873, 877 (1986).
16. 317 U.S. 341 (1943).
17. *Hoover v. Ronwin*, 104 S.Ct. 1989 (1984); *California Liquor Dealers v. Midcal Aluminum*, 445 U.S. 97 (1980); *City of Lafayette v. Louisiana Power and Light Co.*, 435 U.S. 839 (1978).
18. This is no longer true in light of Health Care Quality Improvement Act. See *supra* note 9.
19. 748 F.2d 373 (1984).
20. *McClain v. Real Estate B. of New Orleans*, 444 U.S. 232, 241-42, 100 S.Ct. 502, 508-09, 62 L.Ed.2d 441 (1980).
21. Note also *Williams v. St. Joseph Hospital*, 629, F.2d 488 which held that "medical practice *per se* and without more is a local activity. to bring it within reach of the [Federal] antitrust laws a substantial and adverse effect upon interstate commerce is required."
22. 748 F.2d 373, 383, (1984).
23. Ind. Code Section 34-4-12.6-1 et seq., Sections 16-10-1-6.5, and Section 34-4-12.6-1.
24. 748 F.2d 373, 388 (citing Ind. Code Section 16-10-1-6.5, and Section 34-4-12.6-1).
25. 748 F.2d 373, 391 (1984).
26. 552 F.Supp. 1362.
27. *Marrese v. Interqual*, 748 F.2d 373, 393 (1984).
28. 645 F.Supp. 1102 (E.D. Pa. 1986).
29. 28 Pa. Adm. Code Sections 105.51, 107.1.
30. 28 Pa. Adm. Code Sections 107.11-12, 107.26(b)(1).
31. 645 F.Supp. 1102, 1107 (E.D. Pa. 1986).
32. 617 F.Supp. 1226 (D.C. Dcl. 1985).
33. 800 F.2d 1498 (9th Cir. 1986).
34. 800 F.2d 1498 (9th Cir. 1986).
35. *Straube v. Emanuel Lutheran Charity Board*, 287 Or. 375, 600 P.2d 381, 386-87 (1979); *Huffaker v. Bailey*, 273 Or. 273, 540 P.2d 1398, 1401 (1975).
36. 851 F.2d 1273 (11th Cir. 1988).
37. *Weiss v. York Hospital*, 745 F.2d 786 (3rd Cir. 1984); *Buckner v. Lower Florida Keys Hospital District* 403 So.2d 1025 (Fla. Dist Ct. App. 1981).
38. 851 F.2d 1273, 1281 (11th Cir. 1988).
39. Fla. Stat. Section 395.065(1); Fla. Stat. Section 395.0653(3); and Fla. Admin. Code Ann. r. 10D-28.56(f).
40. Fla. Admin. Code Ann. r. 10D-28.56(f).
41. 851 F.2d 1273, 1282 (11th Cir. 1988).
42. 853 F.2d 762 (9th Cir. 1988).
43. 425 U.S. 738, 96 S.Ct. 1848, 48 L.Ed. 2d 338 (1976).
44. 853 F.2d 762, 764 (9th Cir. 1988).
45. 42 U.S.C.A. Sections 11101-11152 (West Supp. 1988); Throughout this paper the Heath Care Quality Improvement Act will be referred to as "HCQIA".
46. H.R. Rep. No. 99-903, 99th Cong., 2d Sess. 10, reprinted in 1986 U.S. Code Cong. and Admin. News 6384 [hereinafter Report].
47. Brennan, Immunities and Tort Reform Health Care Quality Improvement Act of 1986, in Emerging Liabilities in health Care page 13-1 (November 5-6, 1987) (Second Annual Health Care Law Conference seminar material) [hereinafter Brennan].
48. Rich, *The Health Care Quality Improvement Act of 1986: How Should Hospitals Respond* 9 Whittier Law Review 277 (1987).
49. 42 U.S.C.A. Section 11111(a)(1).
50. 42 U.S.C.A. Section 11111(a)(2).
51. 42 U.S.C.A. Section 11112.
52. 42 U.S.C.A. Section 11112(a).
53. 42 U.S.C.A. Section 11112(b).
54. 42 U.S.C.A. Section 11112(b)(3)(A).
55. 42 U.S.C.A. Section 11113.
56. 42 U.S.C.A. Section 11133.
57. 42 U.S.C.A. Section 11133(a)(1)(A).
58. 42 U.S.C.A. Section 11131.
59. 42 U.S.C.A. Section 11111(c)(2)(B).
60. 42 U.S.C.A. Section 11112 (b)(3).
61. II Hospital Law Manual, "Antitrust" 87 (Dec. 1984).
62. 16 ALR 4th 11, Sections 9 and 10.
63. Anderson, Insurance Coverage for Antitrust Liability, in Joint Program on Antitrust Issues in Health Care Industry page 1 (February, 1986) (American Bar Association Health Law Forum Antitrust Law Program New Orleans seminar material) [hereinafter Anderson].
64. 638 F.2d 670 (4th Cir. 1980).
65. 606 F.2d 631 (5th Cir. 1979).
66. 638 f.2d 670, 674 (4th Cir. 1980).
67. Civil No. 85-908 (U.S.D.C. Oregon). ■

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Med Chi . . .
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Angelo J. Troisi FACHE, Executive Director

Last September Med Chi's Council entered into a five-year contract with the law firm of Rifkin, Evans, Silver, and Lamone. The contract requires the firm to provide legislative and legal advice on all matters facing the Faculty.

The year was 1954 and Governor William Donald Schaefer was engaged in his first campaign for elective office. The field of candidates included some very tough competitors. Mr. Schaefer finished behind another young attorney from West Baltimore, Edgar P. Silver. This race for the Maryland House of Delegates was to be the only election William Donald Schaefer ever was to lose. Later, with the help of Edgar P. Silver, Mr. Schaefer went on to win the Fifth District race for the Baltimore City Council, the race for the Presidency of City Council, the race for the Mayor of Baltimore and, his most recent race, in which he defeated Steven Sachs to become Maryland's fifty-eighth governor. The latest polling studies show that William Donald Schaefer is the most popular governor in the history of the State of Maryland.

Mr. Silver, on the other hand, took a decidedly different path to professional and political success. He captured a seat in the Maryland House of Delegates after defeating Schaefer in 1954 and went on to serve twelve years in the Legislature. While in the Maryland General Assembly, Mr. Silver chaired a very powerful transportation committee and earned a reputation as a sage and practical problem solver. Perhaps it was these skills that prompted Governor Tawes to appoint him to the bench in Baltimore City where he served until 1989.

In the summer of 1989 Judge Edgar P. Silver became the catalyst for a significant Maryland event. He joined forces in partnership with three other attorneys to form a law firm with offices in Baltimore, Annapolis, and Washington, DC. The founding principle of the law firm was simple: to provide the highest quality legal advice based upon a team approach in furthering the best interests of clients. Joining Judge Silver were three other people with varied backgrounds and experiences.

At about the same time Judge Silver was beginning his first term in the House of Delegates, Alan M. Rifkin and Gerard E. Evans were born. Mr. Rifkin attended Loyola College in Baltimore where he graduated first in his class. He then went on to the University of Maryland School of Law, graduating with honors. As a college intern, Rifkin worked in the Maryland Senate for Finance Committee Chairman, Melvin A. Steinberg. When Steinberg subsequently became President of the Senate, Rifkin became Counsel to the Senate.

The 1986 ticket of Schaefer/Steinberg - Governor/Lt. Governor

saw Rifkin take a visible and important role in the campaign. Once the campaign was won, Alan Rifkin took the top slot on the Schaefer legislative team as the Governor's Chief Legal Officer. He left the Governor's service after two highly successful legislative sessions to practice law. Some of the great successes realized by Mr. Rifkin and Governor Schaefer include many progressive pieces of tort reform legislation aimed at addressing spiraling medical malpractice premiums. Without Rifkin's undaunted perseverance the possibility of such successes would have been remote. In private practice, Alan Rifkin rendered the same level of advice and guidance to the Medical and Chirurgical Faculty in many legislative and regulatory matters, including the drafting of a set of model hospital medical staff bylaws.

The third member of this team of lawyers is Gerard E. Evans. Mr. Evans is no stranger to the Faculty: he has represented them in Annapolis since 1986. Mr. Evans graduated from Frostburg State University with honors, achieved a master's degree in public policy from the University of Maryland and a juris doctorate from the University of Baltimore School of Law. For the past 10 years Mr. Evans has held increasingly more responsible positions in association with the Maryland General Assembly. For three years he assisted then-Chairman of the Senate Judicial Proceedings Committee, Thomas V. Mike Miller, Jr. From 1978 to 1981 he served as Special Assistant to Montgomery County Executive Charles W. Gilchrist, Jr. In 1986, Mr. Evans clerked for the Chief Judge of the Seventh Judicial Circuit, Ernest A. Loveless, Jr. His extensive political expertise includes serving as Finance Director for the Maryland Mondale/Ferraro Presidential Campaign as well as Finance Director for the Maryland Albert Gore, Jr. for President Campaign. Gerry managed J. Joseph Curran, Jr.'s successful 1984 campaign for Maryland Attorney General and currently serves as Deputy Chairman of the Maryland State Democratic Party.

The fourth partner in the firm is Linda H. Lamone, a seasoned veteran with unparalleled legal experience. Ms. Lamone served in the Attorney General's office for nine years. Her career there culminated with a position in the Office of Counsel to the Maryland General Assembly. As such she researched, designed, and drafted opinions on all types of legal issues considered by the Legislature. Upon leaving the Attorney General's office, she joined the staff of Lt. Governor Melvin A. Steinberg as a Special Counsel. Her responsibilities included shepherding various pieces of critical administration legislation through the Maryland General Assembly. Ms. Lamone is highly regarded in the legal community and, in fact, is President-Elect of the Women's Bar Association of Maryland. Her work in the area of gender bias and discrimination has achieved her accolades from around the country.

On September 14, 1989 the Council of the Medical and Chirurgical Faculty of Maryland entered into a five-year contract with the law firm of Rifkin, Evans, Silver, and Lamone. The contract requires the firm to provide legislative and legal advice on all matters facing the Faculty. An Associate member of the firm, Greg D. Hall, has been placed in the Faculty Office to provide day-to-day assistance in wading through the labyrinth of regulatory issues. Mr. Hall joined the firm and began working in the Faculty office on November 1, 1989. Mr. Hall has an impressive health care background. Working in his father's pharmacy in Arkansas he became familiar with physicians and the problems they face addressing the needs of their patients. Mr. Hall went on to pharmacy school and subsequently attained a juris doctorate from the University of Arkansas School of Law. Mr. Hall is one of a few dozen people in the United States to hold a master's degree in laws specializing in health care law.

The combination of legal, legislative, and political experience this firm brings to the Faculty is unrivaled. The practice of medicine has become a complicated and difficult endeavor. No longer can one attorney or lobbyist provide all that physicians need to survive the regulatory onslaught. The team approach Rifkin, Evans, Silver, and Lamone provide the Faculty is a melding of the best that Maryland has to offer. With offices in Baltimore, Annapolis, Washington, DC, and the Faculty's Cathedral Street headquarters, the firm can attack state as well as federal concerns. It is our sincere promise that the consummation of this relationship will directly benefit each and every member of the Faculty.

Area meetings and course announcements are listed each month under *Doctors Take Note*

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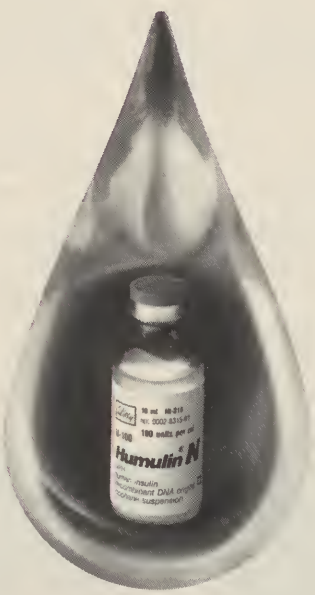
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Medical and Chirurgical Faculty of Maryland

Approved 9/14/89

Faculty Position

A.I.D.S.

Summary

The committee on A.I.D.S. recommends that the Medical and Chirurgical Faculty of the State of Maryland take a position on the following topics:

I. Education, prevention, and treatment programs
II. Discrimination
III. Protection of healthcare workers
IV. The present omnibus bill (Senate Bill #719)
V. Confidentiality law
VI. Physicians who are HIV positive
VII. Mandatory continuing medical education on A.I.D.S. for the licensure of physicians
VIII. Refusal of treatment because of a positive HIV antibody test
IX. Living long and living well
X. Mandatory Reporting
XI. Committee on A.I.D.S.

POSITION AND RECOMMENDED ACTIONS

I. EDUCATION, PREVENTION AND TREATMENT PROGRAMS

A. Encourage and support increases in education and prevention programs.

B. With the new data on AZT, encourage and support increased counselling, screening, and adequate funding for these as well as drug therapy (AZT, prophylactic pentamidine and newer drugs), and adequate physician reimbursement that is necessary to care for much larger numbers of people.

1. Persuade the legislature to release any frozen medicaid funds, and create new funding for these programs.

2. Ask the legislature to fund drug therapy for the working poor who have no insurance and whose only alternative to obtain the necessary medication is to quit work, leave their role as taxpayers, and go on public assistance in order to be eligible for Medicaid. This creates a much larger financial burden on the State than just simply paying for their drug therapy.

Medical and Chirurgical Faculty of Maryland

3. Urge private insurers to fund the cost of drug therapy in patients with asymptomatic HIV infection.

4. Vigorously uphold the principle that no one should be denied comprehensive health care for any reason.

II. DISCRIMINATION

Assume a leadership role in supporting the principle that no one suffer discrimination in health care, procedures, or in any area of their work or life because they are HIV positive.

III. PROTECTION OF HEALTH CARE WORKERS

Support the present MOSHA guidelines which are quite adequate.

LEGISLATION AND RECOMMENDED ACTIONS

IV. THE PRESENT OMNIBUS BILL (SENATE BILL #719)

This bill was a compromise of many different positions and points of view and was signed into law by the Governor. While the Medical and Chirurgical Faculty sponsored or supported some parts of the bill and opposed others, we should now support the bill since it has become law and oppose any attempts to modify or repeal specific provisions. There are several points that need to be addressed:

A. Informed Consent

Our attorneys, as well as the Assistant Attorneys General in the Health Department, among others have told us because of the medical and social consequences of a positive HIV test, we should have been obtaining informed consent all along, whether or not this has been legislated. Indeed, most hospitals and testing sights already had an informed consent that required counseling of the patient. The law simply puts into statue what was already the practice for the majority of the people tested in the State of Maryland. In the opinion of these attorneys, physicians who do not counsel or obtain informed consent put themselves at legal risk with or without the present law.

B. The provision regarding police, firemen, ambulance drivers and other personnel who come in contact with HIV positive individuals.

There is some misunderstanding about this part of the statue since the right of these individuals to be informed that they came in contact with someone who is HIV positive is generic. They may be informed that they came in contact with an individual, but not given the name of that individual. This only applies if the person is already known to be HIV positive. Under this law none of these groups have the right to demand testing of an individual without his or her informed consent. Further, in the absence of a cure, testing the individual who is suspected of being positive, has very limited value to the person exposed. This is crucial to understand in taking a stand that in effect says: the right to privacy and confidentiality of the individual outweighs any benefit to the person who is exposed. This is especially true because the test is not foolproof and there is a window. The only way to be certain that an exposed person has not contacted the virus is for that person to be serially tested.

According to the present statue the only group that can be tested without consent are prisoners and this is a group who has abrogated their rights as citizens by having committed a crime.

C. Refusal of Treatment

This provision was originally opposed by the Medical and Chirurgical Faculty as unnecessary since our own Ethics committee, as well as the A.M.A., has already stated that fear of contagion is not grounds for refusal of treatment. This law brings licensed health occupations in accord with the Human Rights Commission. The original language of the bill was very broad and was narrowed only to individuals who are HIV positive. While many of us may feel that this provision is unnecessary, we feel that Med Chi policy should be to resist any attempt to repeal or alter it.

Medical and Chirurgical Faculty of Maryland

Physicians, as a group, have endured a great deal of adverse publicity and a tarnished image of the profession over those few individuals who have refused to treat patients who are HIV positive. We think that it would be much worse if we tried to repeal an already existing law. The public simply cannot reconcile physicians refusing to treat a sick, disabled, or otherwise handicapped person.

D. Partner Notification

In support of the Omnibus Bill, our attorneys are proud of the fact that we helped to introduce and pass a legal resolution to a great ethical dilemma. Physicians are now free to follow their judgement in informing partners of infected people (or asking the Health Department to do so), without fear of liability.

V. CONFIDENTIALITY LAW

We should join with most official bodies in strongly supporting a confidentiality law. The number one recommendation of the President's Commission on A.I.D.S. was a confidentiality law. The Governor's Advisory Council had the same recommendations. We believe that this issue has been emotionally missated by many people.

First of all, almost everyone agrees that such a law would protect the rights of individuals. The argument against it is that more disclosure and less confidentiality is in the interest of public health. We as physicians and scientists know that just the opposite is true, namely that more people would come forth for testing and treatment if there were a confidentiality law. We know numerous examples of people not coming forth in the absence of this type of law because they fear loss of job, insurance, social stigma, and other types of discrimination. The public interest would be greatly served by a confidentiality law. Because of it, we would be able to bring all of our citizens into proper testing and treatment.

Medical and Chirurgical Faculty of Maryland

VI. PHYSICIANS WHO ARE HIV POSITIVE

There was an attempt last year to introduce a bill governing physicians who are HIV positive. Some hospitals, including Cook county Illinois, have attempted to establish regulations that are much more emotional than scientific. For example, under this type of regulation any physician, regardless of specialty, would be prohibited from seeing patients.

A Hastings Center report (Jan./Feb. 1989) recommended that the practice of "seriously invasive procedures" be restricted for HIV positive physicians. This report opposes all mandatory testing of physicians.

It should be noted that transmission of HIV from a physician to a patient has never been documented.

We recommend that the Medical and Chirurgical Faculty policy for all contagious diseases should be that each one be handled on a case-by-case basis.

VII. MANDATORY CONTINUING MEDICAL EDUCATION ON A.I.D.S.

The States of Washington and Florida have mandated a certain number of hours of continuing education of A.I.D.S. for re-licensure. We recommend a Faculty policy in opposition to this requirement for A.I.D.S. and HIV infection.

VIII. REFUSAL OF TREATMENT BECAUSE OF A POSITIVE HIV ANTIBODY TEST

Although we already have a policy from the Ethics Committee, we recommend that Med Chi policy should be restated: no physician has the moral or legal right to refuse treatment of a patient because that individual is HIV positive.

Medical and Chirurgical Faculty of Maryland

IX. LIVING LONG AND LIVING WELL

The Committee on A.I.D.S. has established, as its theme, the principle that living long and living well is an idea whose time has come and that A.I.D.s (and HIV infection) should be looked upon as a chronic manageable disease Med Chi supports this principle.

X. MANDATORY REPORTING

Vigorously oppose mandatory reporting of asymptomatic individuals who are HIV positive because it will drive people away from testing and therefore be counter-productive to our basic goal of bringing people into care and treatment.

XI. COMMITTEE ON A.I.D.S.

As previously stated in our minutes, we recommend that the Committee on A.I.D.S. should represent Med Chi before the legislature.

Medical and Chirurgical Faculty of Maryland

Approved 10/19/89

Faculty Position

CHOLESTEROL TESTING

Written by: Herman C. Maganzini, M.D., F.A.C.P., Chairman

COMMITTEE ON PUBLIC HEALTH

Summary

The Committee on Public Health recommends that the Medical and chirurgical Faculty of Maryland adopt the following position on Cholesterol Testing:

1. Availability of Cholesterol Testing to all Maryland Citizens
2. Quality Assurance
3. Treatment Guidelines
4. Education & Referral

Position and Recommendation

I. AVAILABILITY OF CHOLESTEROL TESTING TO THE PUBLIC

A. The Medical and Chirurgical Faculty of Maryland encourages the availability of accurate and reliable cholesterol testing services to identify persons in Maryland whose blood cholesterol level places them at risk of developing coronary heart disease.

II. QUALITY ASSURANCE

A. Public screening provides the possibility of detecting large numbers of persons with high blood cholesterol levels in addition to those detected in the physicians office.

Assurances must be made that public screening programs and the technical component of cholesterol testing services operate under

qualified supervision, adequately trained personnel, reliable procedures, and an effective quality assurance program. Public screening programs must ensure that persons with identified high blood cholesterol receive proper follow-up with their private physicians and encourage public education about cholesterol.

B. 1. Med Chi supported SB 172 which requires a cholesterol testing permit to be issued for testing outside a permanently located laboratory.

2. Med Chi supports administrative regulations 10.10.04 Cholesterol Testing (Maryland Register, Vol. 16, Issue 13, June 30, 1989) implementing the statute.

3. Med Chi supports Guidelines for Cholesterol Screening Programs developed by the National Heart, Lung, and Blood Institute.

4. Med Chi joins with the Maryland Heart Association and with the Department of Health & Mental Hygiene in the encouragement of public cholesterol screening programs.

III. TREATMENT GUIDELINES

A. Adults

Med Chi endorses Adult Treatment Guidelines developed by the National Cholesterol Education Program:

"The ADULT TREATMENT GUIDELINES set new criteria for defining candidates for medical intervention. The new GUIDELINES recommend and elaborate on detection, treatment and follow-up methods, including a guide for dietary treatment. For case finding purposes, the initial classification based on total blood cholesterol is defined as follows:

Classification by Total Cholesterol

Desirable Blood Cholesterol - Below 200 mg/dl
Borderline-High Blood Cholesterol - 200-239 mg/dl
High Blood Cholesterol - Above 240 mg/dl

Recommended Follow-up

If Total Cholesterol is less than 200 mg/dl
....Repeat within 5 years

If Total Cholesterol is 200-239 mg/dl and there is no definite CHD or other CHD risk factors
....Provide dietary information and recheck annually

If Total Cholesterol is 200-239 mg/dl and there is definite CHD or two other CHD risk factors (one of which can be male sex)
....Provide lipoprotein analysis; further action based on LDL-cholesterol level

If Total Cholesterol is equal to or greater than 240 mg/dl
....Provide lipoprotein analysis; further action based on LDL-cholesterol level.

The cutpoint that defines high blood cholesterol (240 mg/dl) is a value above which risk of CHD rises steeply, and corresponds approximately to the 75th percentile for the adult U.S. population.

A new classification based on LDL Cholesterol is recommended as the key index for clinical decision making about Cholesterol lowering therapy. Patients warranting further assessment should be evaluated and treated in accordance with new risk classification for LDL Cholesterol, as follows:

Classification By LDL-Cholesterol

Desirable LDL-Cholesterol.....Below 130 mg/dl
Borderline-High Risk LDL-Cholesterol...130-159 mg/dl
High-Risk LDL-Cholesterol.....Above 150 mg/dl

Recommended Followup
Initiate Dietary Treatment if LDL cholesterol is 160 mg/dl or greater and patient has no definite CHD or other risk factors. Minimal goal is to maintain LDL cholesterol below 160 mg/dl.*

If LDL cholesterol is 130 mg/dl or greater and patient has definite CHD or two other risk factors. Minimal goal is to maintain LDL cholesterol below 130 mg/dl.

Initiate Drug Treatment if LDL cholesterol is 190 mg/dl or greater and patient has no definite CHD risk factors. Minimal goal is to maintain LDL cholesterol level below 160 mg/dl.*

If LDL cholesterol is 160 mg/dl or greater and patient has definite CHD or two other risk factors. Minimal goal is to maintain LDL cholesterol below 130 mg/dl.*

*Patients have a lower initiation level and goal if they are at high risk because they already have definite CHD, or because they have any two of the following risk factors: male sex, family history of premature CHD, cigarette smoking, hypertension, low HDL-cholesterol, diabetes mellitus, definite cerebrovascular or peripheral vascular disease, or severe obesity. As goals for monitoring dietary treatment, 160 mg/dl LDL Cholesterol is roughly equivalent to total cholesterol of 240 mg/dl; 130 mg/dl LDL Cholesterol is roughly equivalent to total cholesterol of 200 mg/dl."

*Guidelines of The National Heart, Lung, and Blood Institute, National Institutes of Health

B. Children

Med Chi supports the American Heart Association position on measuring blood cholesterol in children.

*"The American Heart Association stresses the importance of detection and treatment of children with inherited disorders of lipid and lipoprotein metabolism. The AHA does not recommend mass screening of plasma cholesterol for all children and adolescents. Rather, screening and case finding should focus on children at high risk - those aged two and over whose parents or grandparents have developed coronary heart disease or cerebrovascular disease before the age of 55 if male and 60 if female, or those who have a family history of hyperlipidemia.

Plasma cholesterol should be measured in these children and if greater than the 75th percentile for age, high density lipoprotein (HDL) cholesterol should also be measure. If HDL cholesterol does not account for the elevated total cholesterol level, dietary modifications according to AHA guidelines should be initiated.

These recommendations are based on the limited information available on routine plasma lipid screening in all children."

*Approved by the American Heart Association Steering Committee, May 1988.

IV. EDUCATION & REFERRAL

A. Information about blood cholesterol and coronary heart disease risk provided with cholesterol measurements can improve knowledge, attitudes, and health behaviors. Effective education requires knowledgeable, trained personnel supported by printed and possibly video materials suitable for the target audience.

Receipt of only a cholesterol number by a participant is not sufficient in a screening program. Screenees should be able to obtain verbal and printed information on blood cholesterol from screening center personnel. It is essential for public screening programs to provide education for all screenees who attend, regardless of their personal level of cholesterol.

B. Systems should be developed so that persons with elevated cholesterol seek referral and medical care through their private physician.

C. When adopted, the Med Chi white paper position will be distributed to all component and specialty societies, the Maryland Heart Association, Maryland Hospital Association, Maryland Association of Health Maintenance Organization, the Department of Health and Mental Hygiene; to all health care facilities with the technical capability to perform cholesterol testing.

Medical and Chirurgical Faculty of Maryland

Approved 9/14/89

Faculty Position

PRESCRIPTION DRUG CONTROL AND DISPENSING

UMMARY

This paper is formulated to discuss the issues of prescription drug control and dispensing, particularly as it relates to the problem of drug abuse in general, which is the purview of the Committee on Drugs,

The issues are several:

1. The large morbidity and mortality associated with the use of prescription and nonprescription drugs in this country.

2. The issue of recreational use of drugs, most important numerically being alcohol, and the many other drugs which are both licit and illicit, primarily illicit.

3. The issue of drug addition and how to prevent and treat it.

4. The issue of law enforcement with regard to both illicit drugs and the diversion of licit drugs and the increasing mortality associated with the trafficking and law enforcement of drug abuse.

5. The issue of restricting the rational use of medicines.

The question of whether a governmental system which totally proscribes certain drugs and provides extreme restrictions on the prescription of others will reduce deaths and morbidity is an open one. There seems little doubt that our country has extremely prohibitive and restrictive laws and yet has a huge mortality associated with distribution networks of illicit drugs and also more than ten thousand deaths a year from drug overdose.

Medical and Chirurgical Faculty of Maryland

LEGISLATION

At this time, a system of triplicate prescription forms to be used by all physicians prescribing Schedule 2 controlled dangerous substances in the state of Maryland is under consideration. Schedule 2 substances include such drugs as: Morphine, Dilaudid, Methadone, Hycodan, Levodromorane, Percodan, Percocet, Tylox, Seconal, Neuhitol, Tuinol, Fentanyl, Dexedrine, and Ritalin. Such a system would provide a State three copy prescription blanks, one copy of which would be retained by the doctor, one copy to remain with the pharmacist, and the third copy to be filed by the Health Department in a computerized system. The rationale for instituting such a system is based on data, largely from the NIH DAWN Information System indicating, for example, that in 1985, 53% of all drug related emergency room visits and 49.6% of all drug related deaths involved licit prescribed medicines. It has been suggested that a triplicate system would lead to better control over the prescription and diversion of such drugs and thus contribute to decreased morbidity and mortality. This is misleading and not supported by the facts.

In actuality, according to DAWN from 1987, one-half of the drug mentions in emergency room deaths from overdoses are associated with tranquilizers (596); non-narcotic analgesics (388); non-barbiturate sedatives (219); anti-depressants (1037); anti-psychotics (147); "other drugs" (1048); and alcohol in combination (1730).

First of all, these are not Schedule 2 substances and would not be covered by the triplicate form. secondly, the mere mention of the drug in an overdose case does not imply that it was improperly prescribed. Ten percent of the deaths from overdose occur with anti-depressants. It is almost certain that the majority of such patients were depressed and were suicidal by the very nature of their illness. If we were to impose restrictions on the prescription of these drugs, how many more lives might be lost for lack of their marvelous anti-suicidal effects? The same may apply to the tranquilizers and others.

The proponents of a triplicate prescription form, claim it will give them data with which to track down physicians who are dishonest, disabled, deceived, or dated. It is implied that the legitimate prescribing of medication for the ill will not be affected. The data from states where triplicate is in effect demonstrate otherwise.

Thus, in states using triplicate blanks for Schedule 2 drugs, there is a decrease in the prescription of these drugs by thirty to 50% in the first two years after instituting such a system.

Only 21% to 35% of the state's duly authorized prescribers actually ordered the blanks to prescribe Schedule 2 medications at all. Meanwhile, in states where data is available, coincident with the great decrease in prescription of Schedule 2's such as Percodan and Dilaudid, there is an even greater increase in the prescription of class 3's, not covered by triplicate, such as Vicodin and Talwin.

There is a great disagreement among experts in medicine about the control of pain; but how anyone can believe on the face of it, that these kinds of data indicate improved treatment of pain, is inconceivable. I would like to quote from D. Russell Portenoy, Director of Analgesic Studies at Sloan-Kettering: "The implementation of a triplicate prescription system, for example, may be associated with a dramatic reduction in the prescription of opioids by practitioners, over 60% in one survey. Although the degree to which these systems limit appropriate prescribing has not been assessed, it is difficult to attribute a reduction in drug use of this magnitude to inappropriate prescribing, particularly in the LIGHT OF THE UNDERTREATMENT OF PAIN ALREADY EXTANT." (capitals are mine).

The DEA has indicated that they receive no complaints from physicians subjected to a triplicate system. In actuality, the threat to confidentiality was thought so great by a group of patients and physicians in the state of New York that they joined with two physicians organizations and brought suit against the state (Whale vs. Roe, 1977). This suit was lost on appeal to the Supreme Court, effectively squelching further complaints.

Medical and Chirurgical Faculty of Maryland

Most important, data evaluated by the AMA (Board of Trustees report: PP (A-89) demonstrates that there is no reduction in ER mentions of Schedule 2 substances in states where multiple copy prescriptions are in effect. Quite the contrary, whether heroin and cocaine (the most abused drugs) are included or not, there is a higher rate of emergency room mentions of Schedule 2 drugs in seven state where triplicate is in effect. In other words, triplicate may make it easier for the Health Department to put the finger on the physician, but it does not prevent the devastating effects of drug abuse. Its chilling effect on prescription practices affects the vast majority of legitimate practitioners and patients in order to catch a few who act improperly. Thus, it may, in effect, throw out the baby with the bath water.

POSITION

It is our understanding that the triplicate prescription plan is to be presented to the legislature this year by the Health Department and perhaps others.

The State Health Department appears to favor the triplicate plan; and we believe that they are supported by the DEA.

The AMA position is "to oppose expansion of the multiple-copy prescription programs. The multiple-copy prescription program has been documented as ineffective in reducing prescription drug abuse and their adverse effect on the availability of prescription medications for therapeutic use."

The Med Chi's Committee on Drugs recommends that the Faculty vigorously oppose the adoption of a triplicate prescription plan in our state for the following reasons over and above its demonstrated ineffectiveness in curbing drug abuse morbidity and mortality:

1. Invasion of patient's privacy is prime.

2. It is a misuse of funds. Funds for this program should be used to provide more treatment facilities for patients suffering from addiction.

3. There is the potential for altering the physician/patient relationship when the patient is advised that prescription information will be reported to the State Health Department.

4. There is the potential for extending the list to include other scheduled medications as they are doing in New York.

5. There is the potential of information being diverted to inappropriate sources.

6. We want to be certain that evaluation of physicians' prescribing practices is conducted by his/her peers. This is because of the wide variation of acceptable practices and disagreement among physicians on matters of appropriate use of controlled substances.

7. Collection of 100% of the data is costly and time consuming when only a very small portion of the providers will be sanctioned.

8. There is the potential for inhibiting the creative practice of medicine.

9. We also fear that physicians may be afraid to prescribe needed medications for fear their name will appear on some list.

10. We fear that some patients who are currently receiving these medications under medical supervision may turn to the streets for drugs if physicians refrain from prescribing.

We also recommend that the Faculty continue to pursue its present plans to develop education programs for prescribing physicians on the issues of drug abuse and its treatment. We are meeting with representatives of Johns Hopkins, University of MD, NIH, Baltimore City Health Department, and the Governor's Commission on Drug Abuse to begin work on a model course in late September of this year.

RECOMMENDED ACTION

We should involve the support of other interested and concerned organizations such as the pharmacy, psychiatric, pharmaceutical manufacturing, oncology, and perhaps, civil rights groups in our efforts to oppose this triplicate plan. It might be advisable to supply literature on this matter to our legislators so that they understand the implications of the Health Department and the Governor's office to explain our position. If necessary, we should bring expert witnesses, such as Dr. Portenoy of Sloan-Kettering, to add their views.

Medical and Chirurgical Faculty of Maryland

The institution of triplicate prescription system in our state will affect the prescribing habits of all practicing physicians for the indefinite future in a manner which is entirely geared to discovering the few physicians who are derelict in their practices. The demonstrated ineffectiveness of triplicate in reducing morbidity and in saving lives and its potentially devastating and sweeping effects of legitimate prescribing practices constitutes a major threat to adequate and proper patient care.

Medical and Chirurgical Faculty of Maryland

Approved 11/16/89

Faculty Position

THE PROBLEM OF THE UNINSURED

Summary

National Data

1. In 1987 37± (36.8) million people in the U.S. were uninsured (excludes those covered by private insurance, Medicaid, Medicare, Champus, Champus/VA etc.)

2. This is 15.5% of the 1987 population of U.S. (versus 12.3% in 1977)

3. 17.4% of the population is less than 65 years of age (or 36.5 million people - since Medicare covers most persons over age 65.)

4. Employed Uninsured
   a. 15.7% of all employed workers or their dependents are uninsured (28.6 million)
   b. This number constitutes 78.3% of all uninsured people under 65 years of age.

5. The other 20+% of uninsured persons are unrelated to an employed adult.

Maryland Data

1. 14.1% of the population, of less than 65 years is uninsured (approximately 573,000 of 4.1 million).

2. Data relating this group to employment in the

   family is presently unavailable but 66% of uninsured adults (18-64 years old) in Maryland are employed (265,000/401,000)

Individuals & Groups involved who have made recommendations or even proposed legislation to accomplish their desired results include:

Senator Edward Kennedy, Rep. Henry A. Waxman, Rep. Don S. Pease, Rostenkowski, Professors Enthoven & Kronich (Stanford University), Social Security Advisory Council, Bipartisan Commission on Comprehensive Health

Medical and Chirurgical Faculty of Maryland

Care ("Pepper Commission"), Physicians for a National Health Program, The National Leadership Commission and the A.M.A. at the national level, and Governor Schaefer's commission on Health Care Policy Financing ("Feinblatt Commission"), "Subcommittee on the Uninsured" (Chairman, Rev. Joseph A. Sellinger), Advisory Board on the Uninsured - Department of Economic & Employment Development (Senate Bill 292) at the state level in Maryland.

Eligibility requirements vary from all the uninsured in the country or state to various special subgroups such as uninsured children, uninsured college students, uninsured/unemployed adults etc.

Proposed Methods of Health Care Delivery

1. Mandate managed care exclusively.
2. Continue multiple delivery systems to include managed care, private physicians and hospitals.

Payment Options and Funding

1. Universal Health Insurance with the federal government being the sole payor.
2. Continue private commercial insurance only with payment vouchers for Medicaid and Medicare.
3. Mandated employer paid benefits with tax incentives.
4. Combination plans with government, employers and individuals paying in proportion to need (including a means test for Medicare).
5. Expanding Medicaid eligibility levels to 100% of Federal Poverty Income Level.
6. Federally legislated basic health coverage using commercial insurance and a mandated fee schedule for physicians and lump sum payments to hospitals.

7. Catastrophic insurance with caps to a maximum outlay of 2500 or 3000 dollars.

8. Increase cigarette and alcohol tax to raise revenues for health care.

Position

Conclusions

These health care financing and access problems are evoking increased concern and action at all levels of government and even more so, big business. Some change will certainly be forthcoming. It is imperative that all physicians in the State of Maryland (and nationwide) become more involved in the development and implementation of new proposals, if the solutions are to be successful. We must not allow economics to be the paramount driving force in these deliberations (as it seems to be in many such proposals). If it is, then the competent and compassionate health care which our patients should have and which we have always given will no longer be possible.

Recommendation

The Medical and Chirurgical Faculty of Maryland supports the following positions:

1. There should be universal access to health care and universal coverage for all Americans. Universal access and coverage is not the same as universal health insurance and the two should not be confused.

2. In an attempt to cover the uninsured population of America, we endorse the concept that requires employers to provide health insurance coverage through the private sector for all full-time employees (greater than 17 1/2 hours per week). This coverage should be phased in gradually and should begin with larger employers. However, the problem will not be solved until smaller employers are included since 48% of the uninsured work for employers with less than 10 employees. This program should include the development of a package of Basic Health Benefits.

Medical and Chirurgical Faculty of Maryland

3. Employers should be provided with a program of tax credits, premium deductibility and other incentives to avoid adverse effects on employers, especially the small employer.

4. The Medicaid Program must be reformed to include 100% of the individuals below the federal poverty level. This reform should include uniform eligibility on a national basis; national standards of uniform minimum adequate benefits; eliminate existing categorical eligibility requirements; and provide adequate hospital and physician reimbursement to assure broad access to care.

5. State-level insurance risk pools should be established to provide coverage for those individuals above the poverty level and unemployed or self-employed. Insurance should be through the private insurance sector with premium subsidies for those near the poverty level. All insurance providers in the state must contribute to the risk pools for them to be successful.

6. Self-employed individuals should also be permitted 100 percent deductibility of health insurance premium as are corporate businesses.

7. Physicians should support increased taxes on alcohol and tobacco products with proceeds being directed to finance health care programs and research.

This policy would provide comprehensive insurance coverage through the private sector to all Americans. Universal access to care would also be available. The cost of such a program would be spread across the entire spectrum of America.

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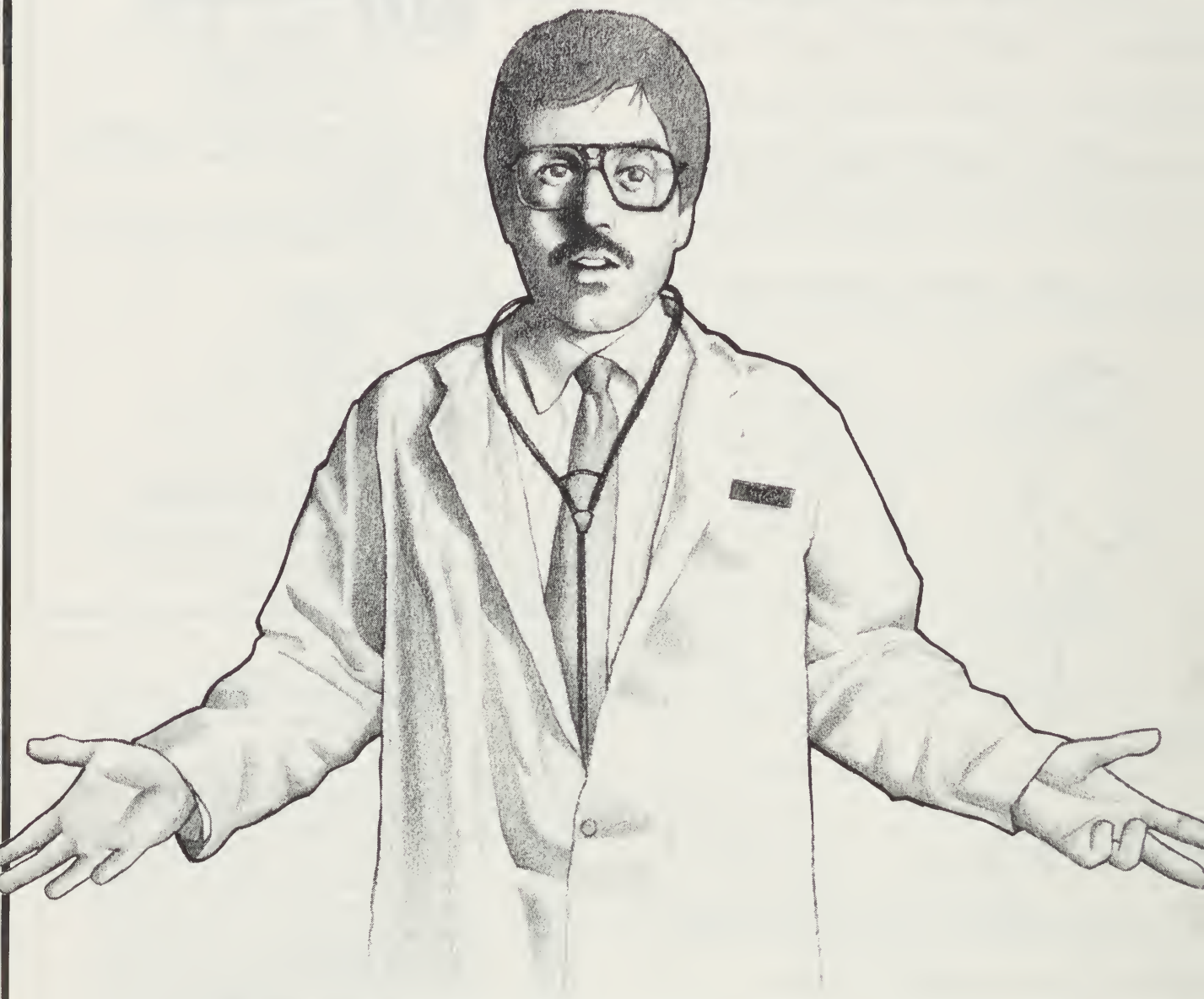
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The Medical and Chirurgical Faculty of the State of Maryland Legislative Directory

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The Legislative Process*

From Hopper to Enactment

The drafting of legislation requires the skill of experienced and trained personnel. This service is rendered by the Department of Legislative Reference. A bill or joint resolution may be introduced in advance of regular sessions and is styled a "prefiled bill." A bill is filed ("is dropped into the hopper") with the Secretary of the Senate or the Clerk of the House, is given a number, and is readied for its first reading on the floor. Bills may be introduced in either chamber until the last 35 days of the session. After that, bills may be introduced only with the consent of two-thirds of the membership.

First Reading The Reading Clerk, when the session has convened, reads the title and the presiding officer assigns the bill to the appropriate committee.

Reference to Committee The committees meet daily during the session to receive testimony and take action on bills assigned. Citizens are encouraged to present their views on the subject matter by mail or by personal appearance. Legislative agents (lobbyists), representing organized interest groups, speak at these hearings, either to oppose or support the proposed legislation. The Department of fiscal Services prepares a fiscal analysis for each bill and these fiscal notes are considered during the committee deliberations.

Unfavorable committee action, which may mean legislative "death," frequently requires as much, or more, committee discussion and time as favorable committee action, which sends the bill to the floor for second reading and floor consideration.

Second Reading and Floor Consideration The bill is reported to the floor by the committee (favorably, unfavorably, or without recommendation, nd with or without committee amendment). It is open to amendment from the floor, and the ultimate form of the bill must be determined on second reading. Committee action may be reversed but this is infrequent.

Third Reading The bill must be printed for third reading with all amendments included in this final version. No amendments may be presented on third reading in the chamber of its origin, and the bill must be passed by a majority of the elected membership.

Second Chamber The procedure follows a pattern identical with that of the chamber in which the bill originated, except amendments may be proposed during third reading as well as second reading. If not amended in the second chamber, final passage may occur without reprinting.

*Information provided by the State of Maryland Department of Legislative Reference, F. Carvel Payne, Director.

Consideration of Bills

Consideration of Bills Originating in One Chamber and Amended in Second Chamber

If amended in the Second chamber, the bill is returned to the chamber of origin where a vote is taken on a motion to concur or reject the amendments. If concurrence is voted, the bill itself is voted on as amended and action is complete. The bill is reprinted, or enrolled, to include the added amendments before submitting it to the Governor.

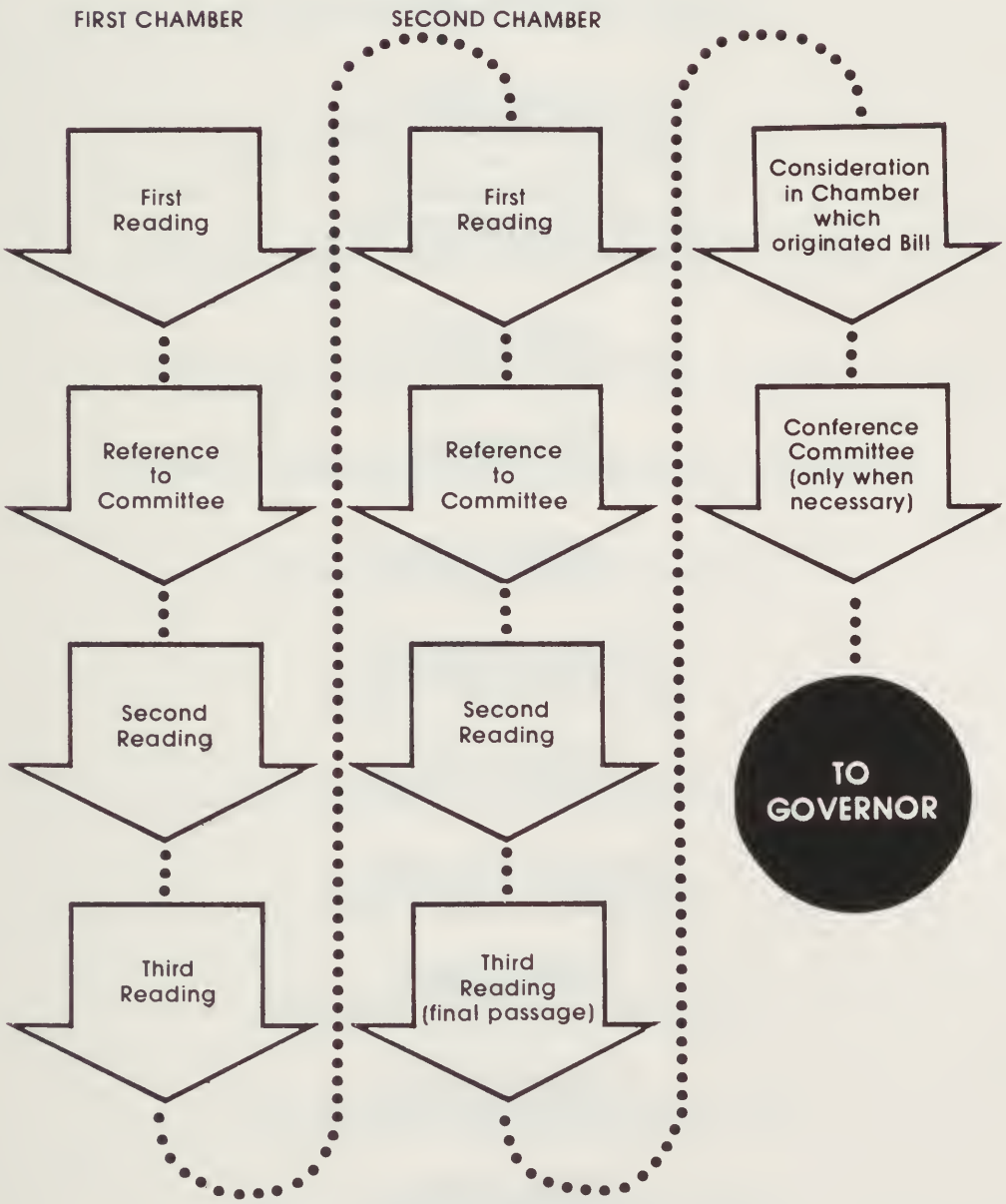
If the amendments are rejected, two courses of action are possible: 1) the amending chamber may be requested to withdraw its amendments, or 2) upon refusal of withdrawal of amendments, either chamber may request a conference committee to resolve the differences between the two chambers.

Conference Committee A report of a conference committee goes back to both chambers to be adopted or rejected without amendment. If the Conference Committee report is adopted, the bill is voted upon for final passage in each house. If the Conference Committee report is rejected by either house, the bill fails.

Presentation of Bills to the Governor Presentation of all bills, except the budget bill and constitutional amendments, to the Governor is mandatory. The budget bill becomes law upon its final passage and cannot be vetoed. Bills must be presented to the Governor within twenty days following adjournment of a session, and in the case of such bills, the Governor may veto within thirty days after presentation to him. If he does not veto a bill it becomes a law. He may not veto a constitutional amendment.

The Power to Override a Veto rests with the Legislature. If a bill is vetoed during a regular session, the veto message is considered immediately. If a bill presented after the session is vetoed, the veto message must be considered immediately at the next regular or special session of the Legislature, except that the Legislature during the first year of a new term may not override a veto. A three-fifths vote of the elected membership in each chamber is necessary to override a veto.

The Progress of a Bill



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Annapolis, MD 21401-1991
841-3447 858-3447

Honorable Ethel Ann Murray
Cecil County
403 H.O.B.
Annapolis, MD 21401-1991
841-3444 858-3444

Honorable Joseph W. O'Malley
Baltimore City
322 H.O.B.
Annapolis, MD 21401-1991
841-3319 858-3319

Honorable Patrick C. Scannello
Anne Arundel County
214 H.O.B.
Annapolis, MD 21401-1991
841-3233 858-3233

Honorable Patricia R. Sher
Montgomery County
220 H.O.B.
Annapolis, MD 21401-1991
841-3045 858-3045

Honorable C. Lawrence Wiser
Montgomery County
223 H.O.B.
Annapolis, MD 21401-1991
841-3028 858-3028

Honorable John F. Wood, Jr.
Charles & St. Mary's Counties
216 H.O.B.
Annapolis, MD 21401-1991
841-3247 858-3247

Economic And Environmental Affairs - Senate

Honorable Clarence W. Blount, *Chairman*
Baltimore City
201 S.O.B.
Annapolis, MD 21401-1991
841-3697 858-3697

Honorable Arthur Dorman, *Vice-Chairman*
Prince George's County
303 S.O.B.
Annapolis, MD 21401-1991
841-3141 858-3141

Honorable John N. Bambacus
Allegany & Garrett Counties
406 S.O.B.
Annapolis, MD 21401-1991
841-3565 858-3565

Honorable Michael J. Collins
Baltimore County
211 S.O.B.
Annapolis, MD 21401-1991
841-3642 858-3642

Honorable John W. Derr
Frederick & Washington Counties
408 S.O.B.
Annapolis, MD 21401-1991
841-3575 858-3575

Honorable Idamae Garrott
Montgomery County
208 S.O.B.
Annapolis, MD 21401-1991
841-3151 858-3151

Honorable Paula C. Hollinger
Baltimore County
206 S.O.B.
Annapolis, MD 21401-1991
841-3131 858-3131

Honorable American Joe Mieduswieski
Baltimore City
311 S.O.B.
Annapolis, MD 21401-1991
841-3598 858-3598

Honorable S. Frank Shore
Montgomery County
306 S.O.B.
Annapolis, MD 21401-1991
841-3134 858-3134

Honorable Gerald W. Winegrad
Anne Arundel County
401 S.O.B.
Annapolis, MD 21401-1991
841-3578 858-3578

Honorable Thomas M. Yeager
Howard & Prince George's Counties
404 S.O.B.
Annapolis, MD 21401-1991
841-3572 858-3572

Finance - Senate

Honorable Catherine I. Riley, *Chairman*
Harford County
P.W.S.O.B.
Annapolis, MD 21401-1991
841-3158 858-3158

Honorable Thomas P. O'Reilly, *Vice-Chairman*
Prince George's County
P.W.S.O.B.
Annapolis, MD 21401-1991
841-3155 858-3155

Honorable Troy F. Brailey
Baltimore City
202 S.O.B.
Annapolis, MD 21401-1991
841-3656 858-3656

Honorable Thomas L. Bromwell
Baltimore County
215 S.O.B.
Annapolis, MD 21401-1991
841-3620 858-3620

Honorable Victor Cushwa
Allegany & Washington Counties
309 S.O.B.
Annapolis, MD 21401-1991
841-3609 858-3609

Honorable George W. Della, Jr.
Baltimore City
207 S.O.B.
Annapolis, MD 21401-1991
841-3600 858-3600

Honorable Leo E. Green
Prince George's County
212 S.O.B.
Annapolis, MD 21401-1991
841-3631 858-3631

Honorable Edward J. Kasemeyer
Howard & Montgomery Counties
310 S.O.B.
Annapolis, MD 21401-1991
841-3671 858-3671

Honorable James C. Simpson
Charles & St. Mary's Counties
316 S.O.B.
Annapolis, MD 21401-1991
841-3616 858-3616

Honorable Michael J. Wagner
Anne Arundel County
209 S.O.B.
Annapolis, MD 21401-1991
841-3593 858-3593

Standing Committees of the Senate

Budget and Taxation

Room 100, James Senate Office Bldg.
Phone 858-3690

Senator Laurence Levitan, *Chairman*
Senator Francis X. Kelly, *Vice-Chairman*

Members:
Senator William H. Amoss
Senator John A. Cade
Senator C. Bernie Fowler
Senator Barbara A. Hoffman
Senator Nathan C. Irby, Jr.
Senator Frank J. Komenda
Senator Julian L. Lapides
Senator Lewis R. Riley
Senator Ida G. Ruben
Senator Charles H. Smelser
Senator Decatur W. Trotter

Economic and Environmental Affairs

Room 200, James Senate Office Bldg.
Phone 858-3661

Senator Clarence W. Blount, *Chairman*
Senator Arthur Dorman, *Vice-Chairman*

Members:
Senator John N. Bambacus
Senator Michael J. Collins
Senator John W. Derr
Senator Idamae Garrott
Senator Paula C. Hollinger
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Senator Gerald W. Winegrad
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Finance

Presidential Wing
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Senator Catherine I. Riley, *Chairman*
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Members:
Senator Troy Brailey
Senator Thomas L. Bromwell
Senator Victor Cushwa
Senator George W. Della, Jr.
Senator Leo E. Green
Senator Edward J. Kasemeyer
Senator James C. Simpson
Senator Michael J. Wagner

Judicial Proceedings

Room 300, James Senate Office Bldg.
Phone 858-3623

Senator Walter M. Baker, *Chairman*
Senator Norman R. Stone, Jr., *Vice-Chairman*

Members:
Senator F. Vernon Boozer
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Senator Nancy L. Murphy
Senator John A. Pica, Jr.
Senator Margaret C. Schweinhaut
Senator Albert R. Wynn
Senator Larry Young

Standing Committees of the House

Appropriations

Room 131, House Office Bldg.
Phone 858-3407

Charles J. Ryan, *Chairman*
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Patricia R. Sher
C. Lawrence Wiser
John F. Wood, Jr

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Room 141, House Office Bldg.
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Sylvania W. Woods, Jr.
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Environmental Matters

Room 161, House Office Bldg.
Phone 858-3534

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Marsha G. Perry
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Joan B. Pitkin
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John F. Slade, III
Royd R. Smith
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Joseph J. Minnick
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D. Bruce Poole
David B. Shapiro
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Theodore Levin
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Ellen R. Sauerbrey
Elizabeth S. Smith
Michael J. Sprague
Paul E. Weisengoff

Legislative Members by County/City/District

Legislator	Session Address	District Address	Leg. District	County/City	Committee	Yrs. in Leg
Sen. John N. Bambacus	406 SOB Annapolis 21401 841-3565	P.O. Box 1 Frostburg 21532 689-4666	1	Allegany, Garrett Counties	Economic & Environmental Affairs	7
Del. George C. Edwards	411 HOB Annapolis 21401 841-3435	P.O. Box 8 Grantsville 21536 895-5720	1	Allegany, Garrett Counties	Appropriations	7
Del. Kevin Kelly	319 HOB Annapolis 21401 841-3454	201 Washington St. Cumberland 21502 777-9000	1	Allegany County	Judiciary	3
Del. Betty Workman	319 HOB Annapolis 21401 841-3462	65 LaVale Court LaVale 21502 729-2041	1	Allegany County	Constitutional & Administrative Law	3
Sen. Victor Cushwa	309 SOB Annapolis 21401 841-3609	P.O. Box 608 Hagerstown 21741 791-2900	2	Allegany, Washington Counties	Finance	12
Del. Casper R. Taylor	151 HOB Annapolis 21401 841-3519	316 Prince George's St. Cumberland 21502 724-9234	2	Allegany, Washington Counties	Economic Matters	15
Del. Peter G. Callas	423 HOB Annapolis 21401 841-3449	35 Day View Drive Hagerstown 21740 739-0212	2	Washington County	Constitutional & Administrative Law	7
Del. Donald F. Munson	422 HOB Annapolis 21401 841-3447	28 West Church St. Hagerstown 21740 791-4511	2	Washington County	Economic Matters	15
Sen. Bernie Fowler	210 SOB Annapolis 21401 841-3673	P.O. Box 459 Prince Frederick 20678 535-3366	29	Anne Arundel, Calvert, St. Mary's	Budget & Taxation	7
Del. George Owings, III	217 HOB Annapolis 21401 841-3231	Box 3, Rt. 778 Owings 20736 855-4100	29	Anne Arundel, Calvert Counties	Constitutional & Administrative Law	2
Del. J. Ernest Bell, II	217 HOB Annapolis 21401 841-3314	10 Court House Dr. P.O. Box 362, Leonardtown 20650 475-8421	29	Calvert, St. Mary's Counties	Judiciary	7
Del. John F. Slade, III	217 HOB Annapolis 21401 841-3314	P.O. Box 20 Valley Lee 20692 475-5151	29	St. Mary's County	Environmental Matters	7
Sen. Gerald W. Winegrad	401 SOB Annapolis 21401 841-3578	401 SOB Annapolis 21401 841-3578	30	Anne Arundel County	Economic & Environmental Affairs	7
Del. John C. Astle	212 HOB Annapolis 21401 841-3209	212 HOB Annapolis 21401 841-3209	30	Anne Arundel County	Appropriations	7
Del. Michael E. Busch	212 HOB Annapolis 21401 841-3211	212 HOB Annapolis 21401 841-3211	30	Anne Arundel County	Judiciary	3
Del. Donald E. Lamb	212 HOB Annapolis 21401 841-3211	212 HOB Annapolis 21401 841-3211	30	Anne Arundel County	Constitutional & Administrative Law	3
Sen. Philip C. Jimeno	305 SOB Annapolis 21401 841-3658	915 Manor House Ln. Brooklyn Park 21225 636-4134	31	Anne Arundel County	Judicial Proceedings	9

Legislator	Session Address	District Address	Leg. District	County/City	Committee	Yrs. in Leg
Del. W. Ray Huff	213 HOB Annapolis 21401 841-3217	8349 Ritchie Hwy. Pasadena 21122 647-1111	31	Anne Arundel County	Constitutional & Administrative Law	3
Del. Charles W. Kolodziejski	213 HOB Annapolis 21401 841-3217	168 Carvel Beach Rd. Baltimore 21226 255-5188	31	Anne Arundel County	Economic Matters	6
Del. John Leopold	213 HOB Annapolis 21401 841-3206	3623 Chadwick Ct. Pasadena 21122 255-4477	31	Anne Arundel County	Economic Matters	7
Sen. Michael J. Wagner	209 SOB Annapolis 21401 841-3593	Arundel Center North, Rm. 510 101 Crain Hwy., N.W. Glen Burnie 21061 760-6453	32	Anne Arundel County	Rules	9
Del. Tyras S. Athey	100 HOB Annapolis 21401 841-3469	100 HOB Annapolis 21401 841-3469	32	Anne Arundel County	Ways & Means	22
Del. Patrick C. Scannello	214 HOB Annapolis 21401 841-3233	114 Vernon Avenue Glen Burnie 21061 768-5678	32	Anne Arundel County	Economic Matters	11
Del. George T. Schmincke	214 HOB Annapolis 21401 841-3233	108 Chalmers Ave. Glen Burnie 21061 768-7773	32	Anne Arundel County	Environmental Matters	11
Sen. John A. Cade	407 SOB Annapolis 21401 841-3568	407 SOB Annapolis 21401 858-3568	33	Anne Arundel County	Budget & Taxation	15
Del. John Gary	215 HOB Annapolis 21401 841-3223	215 HOB Annapolis 21401 841-3223	33	Anne Arundel County	Appropriations	7
Del. Marsha G. Perry	215 HOB Annapolis 21401 841-3223	1605 Edgerton Pl. Crofton 21114 721-7034	33	Anne Arundel County	Environmental Matters	3
Del. Elizabeth S. Smith	215 HOB Annapolis 21401 841-3223	3438 Merrimac Rd. Harbor Hills, Davidsonville 21035 269-0724	33	Anne Arundel County	Ways & Means	15
Sen. Larry Young	405 SOB Annapolis 21401 841-3612	516 N. Charles St. Ste. 1B, Balto. 21201 576-8614	39	Baltimore City	Judicial Proceedings	15
Del. Elijah E. Cummings	141 HOB Annapolis 21401 841-3502	2225 St. Paul St. Baltimore 21218 366-7212	39	Baltimore City	Constitutional & Administrative Law	7
Del. Ruth M. Kirk	314 HOB Annapolis 21401 841-3263	516 N. Charles St. Ste. 1B, Balto. 21201 576-8614	39	Baltimore City	Constitutional & Administrative Law	7
Sen. Troy Brailey	202 SOB Annapolis 21401 841-3656	2405 Baker St. Balto. 21216 669-7142	40	Baltimore City	Finance	27
Del. Tony Fulton	317 HOB Annapolis 21401 841-3277	2106 Bolton St. Baltimore 21217 383-7046	40	Baltimore City	Environmental Matters	3
Del. Ralph M. Hughes	317 HOB Annapolis 21401 841-3277	2320 North Monroe St. Baltimore 21217 225-0555	40	Baltimore City	Judiciary	7
Del. Howard P. Rawlings	131 HOB Annapolis 21401 841-3407	3502 Sequoia Ave. Baltimore 21215 466-4224	40	Baltimore City	Appropriations	11

Legislator	Session Address	District Address	Leg. District	County/City	Committee	Yrs. in Leg
Sen. Clarence W. Blount	201 SOB Annapolis 21401 841-3697	4811 Liberty Hgts. Ave. Baltimore 21207 466-1197	41	Baltimore City	Economic & Environmental Affairs	18
Del. Frank D. Boston	314 HOB Annapolis 21401 841-3283	2200 Garrison Blvd. Baltimore 21216 566-3373	41	Baltimore City	Constitutional &Administrative Law	3
Del. Margaret H. Murphy	314 HOB Annapolis 21401 841-3283	4811 Liberty Hgts. Ave. Baltimore 21207 367-5811	41	Baltimore City	Environmental Matters	11
Del. Samuel Parham	314 HOB Annapolis 21401 841-3283	4811 Liberty Hgts. Ave. Baltimore 21207 367-7455	41	Baltimore City	Constitutional & Administrative Law	1
Sen. Barbara A. Hoffman	308 SOB Annapolis 21401 841-3648	6609 Reisterstown Rd. Ste. 104, Baltimore 21215 764-3614	42	Baltimore City	Budget & Taxation	6
Del. James W. Campbell	320 HOB Annapolis 21401 841-3297	1329 1/2 W. 41st St. Baltimore 21211 366-8160	42	Baltimore City	Ways & Means	11
Del. Samuel I. Rosenberg	320 HOB Annapolis 21401 841-3297	6609 Reisterstown Rd. Ste. 104, Baltimore 21215 764-3614	42	Baltimore City	Appropriations	7
Del. David B. Shapiro	320 HOB Annapolis 21401 841-3297	6609 Reisterstown Rd. Ste. 104, Baltimore 21215 764-3614	42	Baltimore City	Judiciary	9
Sen. John A. Pica, Jr.	314 SOB Annapolis 21401 841-3145	314 SOB Annapolis 21401 841-3145	43	Baltimore City	Judicial Proceedings	11
Del. Gerald J. Curran	321 HOB Annapolis 21401 841-3308	502 Baltimore Ave. Towson 21204 825-6300	43	Baltimore City	Judiciary	23
Del. Ann Marie Doory	321 HOB Annapolis 21401 841-3308	112 Taplow Road Baltimore 21212 323-0401	43	Baltimore City	Economic Matters	3
Del. Henry R. Hergenroeder, Jr.	321 HOB351 Annapolis 21401 841-3308	Homeland Southway Apt. 3-A, Baltimore 21212 433-4093	43	Baltimore City	Ways & Means	23
Sen. Julian L. Lapides	116 SOB Annapolis 21401 841-3686	807 Cathedral St. Baltimore 21201 752-4519	44	Baltimore City	Budget & Taxation	27
Del. Curt Anderson	314 HOB Annapolis 21401 841-3259	1664 N. Gate Rd. Baltimore 21218 323-6425	44	Baltimore City	Ways & Means	7
Del. Kenneth C. Montague, Jr.	301 HOB Annapolis 21401 841-3257	1532 Havenwood Rd. Northwood Shp. Ctr., Balto. 21218 243-3904	44	Baltimore City	Judiciary	3
Del. Anne Scarlett Perkins	141 HOB Annapolis 21401 841-3257	1532 Havenwood Rd. Northwood Shp. Ctr., Balto. 21218 243-3904	44	Baltimore City	Constitutional & Administrative Law	11
Sen. Nathan C. Irby, Jr.	214 SOB Annapolis 21401 841-3165	2021 E. Biddle St. Baltimore 21213 675-3000	45	Baltimore City	Budget & Taxation	7
Del. Clarence Davis	323 HOB Annapolis 21401 841-3325	P.O. Box 33167 Baltimore 21218 366-0483	45	Baltimore City	Ways & Means	7

Legislator	Session Address	District Address	Leg. District	County/City	Committee	Yrs. in Leg
Del. John Douglass	323 HOB Annapolis 21401 841-3325	1535 East North Ave. Baltimore 21213 752-6653	45	Baltimore City	Appropriations1	8
Del. Hattie N. Harrison	323 HOB Annapolis 21401 841-3325	1054 N. Milton St. Baltimore 21213 342-4414	45	Baltimore City	Economic Matters	16
Sen. American Joe Miedusiewski	311 SOB Annapolis 21401 841-3598	421 South Highland Ave. Baltimore 21224 276-8225	46	Baltimore City	Economic & Environmental Affairs	15
Del. Anthony M. DiPietro, Jr.	316 HOB Annapolis 21401 841-3303	225 S. Clinton St. Baltimore 21224 325-5400	46	Baltimore City	Environmental Matters	11
Del. Cornell N. Dypski	316 HOB Annapolis 21401 841-3303	638 S. Decker Ave. Baltimore 21224 276-1974	46	Baltimore City	Judiciary	10
Del. Donald Hammen	316 HOB Annapolis 21401 841-3303	821 S. Grundy St. Baltimore 21224 342-3142	46	Baltimore City	Economic Matters	1
Sen. George W. Della, Jr.	207 SOB Annapolis 21401 841-3600	801 Light Street Baltimore 21230 244-8400	47	Baltimore City	Finance	7
Del. R. Charles Avara	429 HOB Annapolis 21401 841-3547	3508 Coolidge Ave. Baltimore 21229 644-3057	47	Baltimore City	Appropriations	23
Del. Joseph W. O'Malley	322 HOB Annapolis21401 841-3319	604 Jeffrey St. Baltimore 21225 355-4376	47	Baltimore City	Economic Matters	11
Del. Paul Weisengoff	322 HOB Annapolis 21401 841-3319	1904 Griffis Ave. Baltimore 21230 644-6144	47	Baltimore City	Ways & Means	23
Senate Vacancy	410 SOB Annapolis 21401 841-3683		5	Baltimore, Carroll County		
Del. Lawrence A. LaMotte	209 HOB Annapolis 21401 841-3109	2702 Melrose Avenue Woodstock 21163 461-5548	5	Baltimore, Carroll County	Environmental Matters	7
Del. Richard N. Dixon	306 HOB Annapolis 21401 841-3371	1224 Western Chapel Rd. New Windsor 21776 848-6945	5	Carroll County	Appropriations	7
Del. Richard C. Matthews	306 HOB Annapolis 21401 841-3371	1309 Taylor St. Hampstead 21074 239-7600	5	Carroll County	Judiciary	23
Sen.Michael J. Collins	211 SOB Annapolis 21401 841-3642	418 Eastern Blvd. Baltimore 21221 391-7800	6	Baltimore County	Economic & Environmental Affairs	10
Del. R. Terry Connelly	305 HOB Annapolis 21401 841-3332	418 Eastern Blvd. Baltimore 21221 391-7800	6	Baltimore County	Economic Matters	11
Del. E. Farrell Maddox	303 HOB Annapolis 21401 841-3384	5807 Pinehill Dr. White Marsh 21162 391-7800	6	Baltimore County	Judiciary	3
Del. Michael H. Weir	303 HOB Annapolis 21401 841-3384	418 Eastern Blvd. Baltimore 21221 391-7800	6	Baltimore County	Environmental Matters	15

Legislator	Session Address	District Address	Leg. District	County/City	Committee	Yrs. in Leg
Sen. Norman R. Stone, Jr.	216 SOB Annapolis 21401 841-3587	6905 Dunmanway Dundalk 21222 288-5270	7	Baltimore County	Judicial Proceedings	26
Del. John S. Arnick	426 HOB Annapolis 21401 841-3464	7918 Diehlwood Rd. Baltimore 21222 285-2109	7	Baltimore County	Environmental Matters	19
Del. Louis L. DePazzo	305 HOB Annapolis 21401 841-3334	1818 Tyler Road Dundalk 21222 288-9303	7	Baltimore County	Judiciary	11
Del. Joseph H. Minnick	307 HOB Annapolis 21401 841-3334	1702 Stokesley Rd. Baltimore 21222 284-4929	7	Baltimore County	Judiciary	2
Sen. Thomas L. Bromwell	215 SOB Annapolis 21401 841-3620	7503 Belair Rd. Baltimore 21236 665-5470	8	Baltimore County	Finance	7
Del. Joe Bartenfelder	307 HOB Annapolis 21401 841-3365	8410 Belair Road Baltimore 21236 529-2144	8	Baltimore County	Appropriations	6
Del. William J. Burgess	307 HOB Annapolis 21401 841-3365	8215 Edwill Ave. Baltimore 21237 866-4549	8	Baltimore County	Ways & Means	10
Del. Donna M. Felling	307 HOB Annapolis 21401 841-3365	2416 East Joppa Rd. Baltimore 21234 882-5023	8	Baltimore County	Environmental Matters	3
Sen. F. Vernon Boozer	403 SOB Annapolis 21401 841-3706	614 Bosley Ave. Towson 21204 828-0669	9	Baltimore County	Judicial Proceedings	15
Del. John J. Bishop	308 HOB Annapolis 21401 841-3359	1520 Doxbury Road Towson 21204 321-9544	9	Baltimore County	Constitutional & Administrative Law	3
Del. Michael Gisriel	308 HOB Annapolis 21401 841-3359	817 Wellington Rd. Baltimore 21212 377-0509	9	Baltimore County	Ways & Means	3
Del. Martha S. Klima	308 HOB Annapolis 21401 841-3359	1403 Newport Pl. Lutherville 21093 337-2799	9	Baltimore County	Appropriations	7
Sen. Francis X. Kelly	100 SOB Annapolis 21401 841-3606	5 Shawan Road Hunt Valley 21030 252-5025	10	Baltimore County	Budget & Taxation	11
Del. Robert L. Ehrlich, Jr.	309 HOB Annapolis 21401 841-3350	5 Elphin Ct., 102 Timonium 21093 252-4180	10	Baltimore County	Judiciary	3
Del. A. Wade Kach	309 HOB Annapolis 21401 841-3350	214 Ashland Road Cockeysville 21031 527-1962	10	Baltimore County	Economic Matters	15
Del. Ellen R. Sauerbrey	312 HOB Annapolis 21401 841-3401	4122 Sweet Air Rd. Baldwin 21013 592-2200	10	Baltimore County	Ways & Means	11
Sen. Paula C. Hollinger	206 SOB Annapolis 21401 841-3131	206 SOB Annapolis 21401 841-3131	11	Baltimore County	Economic & Environmental Affairs	10
Del. Leon Albin	310 HOB Annapolis 21401 841-3342	6512 Edenvale Rd. Baltimore 21209 486-1365	11	Baltimore County	Constitutional & Administrative Law	3

Legislator	Session Address	District Address	Leg. District	County/City	Committee	Yrs. in Leg
Del. Theodore Levin	310 HOB Annapolis 21401 841-3342	626 Ralston Ave. Baltimore 21209 486-0462	11	Baltimore County	Ways & Means	15
Del. Richard Rynd	310 HOB Annapolis 21401 841-3342	8570 Leisure Hill Dr. Baltimore 21208 484-0426	11	Baltimore County	Appropriations	10
Sen. Nancy L. Murphy	205 SOB Annapolis 21401 841-3653	1330 Sulphur Spring Rd. 2nd Floor, Baltimore 21227 242-5699	12	Baltimore County	Judicial Proceedings	8
Del. Kenneth H. Masters	121 HOB Annapolis 21401 841-3488	1809 Edmondson Ave. Catonsville 21228 747-0407	12	Baltimore County	Judiciary	11
Del. Louis P. Morsberger	304 HOB Annapolis 21401 841-3378	612 Hilton Avenue Catonsville 21228 747-0407	12	Baltimore County	Economic Matters	15
Del. Thomas E. Dewberry	304 HOB Annapolis 21401 841-3378	5443 Valley Road Baltimore 21228 788-5550	12	Baltimore County		1
Sen. Walter M. Baker	301 SOB Annapolis 21401 841-3639	153 East Main St. Elkton 21921 398-0980	36	Caroline Cecil, Kent, Queen Anne, Talbot	Judicial Proceedings	11
Del. John M. Ashley	405 HOB Annapolis 21401 841-3410	Rt. 4, Box 222 Centerville 21617 758-0178	36	Caroline, Cecil, Kent, Queen Anne, Talbot	Appropriations	7
Del. Ronald A.Guns	404 HOB Annapolis 21401 841-3442	80 Fifth Avenue Elkton 21921 398-6847	36	Caroline, Cecil, Kent, Queen Anne, Talbot	Environmental Matters	7
Del. R. Clayton Mitchell, Jr.	H100 State House Annapolis 21401 841-3800	H100 State House Annapolis 21401 841-3800	36	Caroline, Cecil, Kent, Queen Anne, Talbot	Speaker of the House	19
Sen. Frederick C. Malkus	PW SOB Annapolis 21401 841-3590	500 Spring St.,P.O. Box 316 Cambridge 21613 228-1911	37	Caroline, Dorchester, Talbot, Wicomico	Judicial Proceedings	43
Del. Richard F. Colburn	414 HOB Annapolis 21401 841-3429	4731 Egypt Road Cambridge 21613 228-0437	37	Caroline, Dorchester, Talbot, Wicomico	Environmental Matters	7
Del. Philip Carey Foster	412 HOB Annapolis 21401 841-3343	412 HOB Annapolis 21401 841-3343	37	Caroline, Dorchester, Talbot, Wicomico		1
Del. Samuel Q. Johnson, III	415 HOB Annapolis 21401 841-3427	P.O. Box 200 Hebron 21830 546-2400	37	Caroline, Dorchester, Talbot, Wicomico	Environmental Matters	7
Sen. Charles H. Smelser	100 SOB Annapolis 21401 841-3704	100 SOB Annapolis 21401 841-3704	4	Carroll, Frederick, Howard	Budget & Taxation	34
Del. Donald B. Elliott	306 HOB Annapolis 21401 841-3371	204 Lambert Ave., Box 370 New Windsor 21776 848-5373	4	Carroll, Howard County	Environmental Matters	3
Del. George H. Littrell, Jr.	209 HOB Annapolis 21401 841-3107	5209 Reel's Mill Rd. Frederick 21701 662-4367	4	Frederick County	Economic Matters	7

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Del. Thomas Hattery	209 HOB Annapolis 21401 841-3107	P.O. Box 88 Mount Airey 21771 694-0123	4	Frederick County	Ways & Means	7
Sen. William H. Amoss	307 SOB Annapolis 21401 841-3603	2303 Bel Air Rd., P.O.Box 496 Fallston 21047 879-7272	35	Cecil, Harford Counties	Budget & Taxation	14
Del. Ethel Murray	403 HOB Annapolis 21401 841-3444	553 Jackson Hall School Rd. Elkton 21921 398-2040	35	Cecil County	Economic Matters	7
Del. William A. Clark	326 HOB Annapolis 21401 841-3289	2523 Bradfield Ave. Bel Air 21014 838-9433	35	Harford County	Environmental Matters	7
Del. Joseph V. Lutz	151 HOB Annapolis 21401 841-3289	1604 Churchville Rd. Bel Air 21014 838-0900	35	Harford County	Economic Matters	6
Sen. James Simpson	316 SOB Annapolis 21401 841-3616	P.O. Box 888 Waldorf 20604 645-2235	28	Charles, St. Mary's	Finance	15
Del. Samuel C. Linton	216 HOB Annapolis 21401 841-3247	Box 110, Holly Springs Rd. Nanjemoy 20662 246-4922	28	Charles	Appropriations	15
Del. Michael J. Sprague	216 HOB Annapolis 21401 841-3247	P.O. Box 37 Bryans Road 20616 375-7995	28	Charles	Ways & Means	15
Del. John F. Wood, Jr.	216 HOB Annapolis 21401 841-3247	Rt. 8, Box 1D Mechanicsville 20659 884-2345	28	Charles, St. Mary's	Economic Matters	3
Sen. John W. Derr	408 SOB Annapolis 21401 841-3575	13 West Second St. Frederick 21701 695-5733	3	Frederick, Washington	Economic & Environmental Affairs	6
Del. James E. McClellan	324 HOB Annapolis 21401 841-3240	215 Rockwell Terrace Frederick 21701 662-3804	3	Frederick, Washington	Appropriations	11
Del. Royd Smith	324 HOB Annapolis 21401 841-3240	P.O. Box 311 No. 2 South Wisner Rd. Frederick 21701 695-4303	3	Frederick, Washington	Environmental Matters	3
Del. Bruce Poole	319 HOB Annapolis 21401 841-3451	24 Jonathan St., Ste. 207 Hagerstown 21740 739-6409	3	Washington	Judiciary	3
Sen. Catherine I. Riley	PW SOB Annapolis 21401 841-3158	20 Office Street Bel Air 21014 838-7010	34	Harford County	Finance	14
Del. William H. Cox, Jr.	326 HOB Annapolis 21401 841-3289	141 N. Main St. Bel Air 21014 879-9173	34	Harford County	Ways & Means	19
Del. Barbara Kreamer	326 HOB Annapolis 21401 841-3289	118 West Bel Air Ave. Aberdeen 21001 575-7034	34	Harford County	Constitutional & Administrative Law	7
Del. Eileen M. Rehrmann	326 HOB Annapolis 21401 841-3289	103 N. Main St. Bel Air 21014 838-0123	34	Harford County	Appropriations	7
Sen. Thomas M. Yeager	404 SOB Annapolis 21401 841-3572	413 Main Street Laurel 20707 498-3400	13	Howard Prince George's County	Economic & Environmental Affairs	6

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Del. Virginia M. Thomas	219 HOB Annapolis 21401 841-3205	6153 Forty Winks Way Columbia 21045 730-0485	13	Howard County	Environmental Matters	7
Del. William C. Bevan	219 HOB Annapolis 21401 841-3205	349 Main Street, Ste. 22 Laurel 20707 725-0788	13	Howard Prince George's County	Constitutional & Administrative Law	7
House Vacancy	219 HOB Annapolis 21401 841-3205		13	Howard Prince George's County		
Sen. Edward J. Kasemeyer	310 SOB Annapolis 21401 841-3671	12400 Clarksville Pk. Clarksville 21029 988-9818	14	Howard, Montgomery County	Finance	6
Del. Robert L. Flanagan	226 HOB Annapolis 21401 841-3200	12400 Clarksville Pike Clarksville 21029 988-9818	14	Howard County	Judiciary	3
Del. Robert H. Kittleman	312 HOB Annapolis 21401 841-3401	12400 Clarksville Pike Clarksville 21029 988-9818	14	Howard County	Economic Matters	7
Del. Joel Chasnoff	224 HOB Annapolis 21401 841-3052	17904 Georgia Ave, Olney Bldg. Ste. 210, Olney 20832 924-4200	14	Montgomery County	Judiciary	15
Sen. Laurence Levitan	100 SOB Annapolis 21401 841-3169	100 SOB Annapolis 21401 841-3169	15	Montgomery County	Budget & Taxation	18
Del. Gene W. Counihan	100 HOB Annapolis 21401 841-3521	9901 Dellcastle Rd. Gaithersburg 20879 977-5045	15	Montgomery County	Ways & Means	7
Del. Jean W. Roesser	220 HOB Annapolis 21401 841-3090	10830 Fox Hunt Lane Potomac 20854 299-9046Law	15	Montgomery County	Constitutional & Administrative	3
Del. Judith Toth	225 HOB Annapolis 21401 841-3037	P.O. Box 130 Germantown 20874 428-3056	15	Montgomery County	Environmental Matters	15
Sen. Howard A. Denis	402 SOB Annapolis 21401 841-3124	402 SOB Annapolis 21401 841-3124	16	Montgomery County	Judicial Proceedings	12
Del. Brian E. Frosh	220 HOB Annapolis 21401 841-3090	7315 Wisconsin Ave.,Ste. 800 W Bethesda 20814 652-2888	16	Montgomery County	Environmental Matters	3
Del. Gilbert J. Genn	224 HOB Annapolis 21401 841-3011	1 Central Plaza, Ste. 1204 11300 Rockville Pike N. Bethesda 20852 881-7700	16	Montgomery County	Judiciary	3
Del. Nancy K. Kopp	222 HOB Annapolis 21401 841-3001	222 HOB Annapolis 21401 841-3001	16	Mongtomery County	Appropriations	15
Sen. Frank Shore	306 SOB Annapolis 21401 841-3134	306 Senate Office Bldg. Annapolis 21401 841-3134	17	Montgomery County	Economic & Environmental Affairs	18
Del. Mary Boergers	225 HOB Annapolis 21401 841-3037	4417 Puller Dr. Kensington 20895 564-0508	17	Montgomery County	Economic Matters	8
Del. Jennie M. Forehand	223 HOB Annapolis 21401 841-3028	712 Smallwood Road Rockville 20850 762-4772	17	Montgomery County	Appropriations	11

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Del. Michael R. Gordon	222 HOB Annapolis 21401 841-3001	416 Hungerford Dr. Rockville 20850 294-2100	17	Montgomery County	Ways & Means	7
Sen. Margaret C. Schweinhaut	304 SOB Annapolis 21401 841-3137	3601 Saul Road Kensington 20895 946-3111	18	Montgomery County	Judicial Proceedings	40
Del. Patricia Billings	226 HOB Annapolis 21401 841-3200	3904 Rickover Rd. Silver Spring 29092 946-5916	18	Montgomery County	Constitutional & Administrative Law	1
Del. Patricia R. Sher	220 HOB Annapolis 21401 841-3045	1916 Rookwood Rd. Silver Spring 20910 589-7188	18	Montgomery County	Economic Matters	11
Del. C. Lawrence Wiser	223 HOB Annapolis 21401 841-3028	12702 Littleton St. Silver Spring 20906 946-7870	18	Montgomery County	Economic Matters	13
Sen. Idamae R. Garrott	208 SOB Annapolis 21401 841-3151	208 SOB Annapolis 21401 841-3151	19	Montgomery County	Economic & Environmental Affairs	9
Del. Henry B. Heller	221 HOB Annapolis 21401 841-3019	12706 Turkey Branch Pkwy. Rockville 20853 949-4265	19	Montgomery County	Ways & Means	3
Del. Carol S. Petzold	225 HOB Annapolis 21401 841-3090	14113 Chadwick Lane Rockville 20853 871-7413	19	Montgomery County	Constitutional & Administrative Law	3
Del. Leonard H. Teitelbaum	224 HOB Annapolis 21401 841-3046	11805 Auth Lane Silver Spring 20902 921-8282	19	Montgomery County	Environmental Matters	3
Sen. Ida G. Ruben	204 SOB Annapolis 21401 841-3634	11 Schindler Court Silver Spring 20903 439-2332	20	Montgomery County	Budget & Taxation	14
Del. Dana Lee Dembrow	226 HOB Annapolis 21401 841-3200	11215 Oakleaf Dr. #908 Silver Spring 20901 681-3673	20	Montgomery County	Constitutiona & Administrative Law	13
Del. Peter Franchot	223 HOB Annapolis 21401 841-3046	7111 Sycamore Ave. Takoma Park 20912 270-4001	20	Montgomery County	Appropriations	3
Del. Sheila Hixson	221 HOB Annapolis 21401 841-3019	1008 Broadmore Circle Silver Spring 20904 384-4739	20	Montgomery County	Ways & Means	13
Sen. Arthur Dorman	303 SOB Annapolis 21401 841-3141	303 SOB Annapolis 21401 841-3141	21	Prince George's County	Economic & Environmental Affairs	24
Del. Timothy F. Maloney	424 HOB Annapolis 21401 841-3315	424 HOB Annapolis 21401 841-3315	21	Prince George's County	Appropriations	11
Del. Pauline H. Menes	210 HOB Annapolis 21401 841-3114	3517 Marlbrough Way College Park 20740 935-6270	21	Prince George's County	Judiciary	23
Del. James C. Rosapepe	210 HOB Annapolis 21401 841-3114	210 HOB Annapolis 21401 841-3114	21	Prince George's County	Ways & Means	3
Sen. Thomas P. O'Reilly	PW SOB Annapolis 21401 841-3155	7219 Hanover Pkwy. Stes. C & D, Greenbelt 20770 345-6900	22	Prince George's County	Finance	15

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Del. Anne MacKinnon	207 HOB Annapolis 21401 841-3058	6363 67th Place Riverdale 20737 841-3058	22	Prince George's County	Constitutional & Administrative Law	3
Del. Richard A. Palumbo	207 HOB Annapolis 21401 841-3058	4004 St. Barnabas Rd. Suitland 20746 423-8300	22	Prince George's County	Judiciary	11
Del. Paul G. Pinsky	207 HOB Annapolis 21401 841-3058	6205 Inwood St. Cheverly 20785 772-1287	22	Prince George's County	Environmental Matters	3
Sen. Leo E. Green	212 SOB Annapolis 21401 841-3631	3123 Belair Dr. Bowie 20715 464-8777	23	Prince George's County	Finance	11
Del. Mary A. Conroy	208 HOB Annapolis 21401 841-3098	208 HOB Annapolis 21401 858-3098	23	Prince George's County	Ways & Means	3
Del. Joan Pitkin	208 HOB Annapolis 21401 841-3098	12005 Long Ridge Lane Bowie 20715 262-0538	23	Prince George's County	Environmental Matters	11
Del. Charles J. Ryan	131 HOB Annapolis 21401 841-3407	131 HOB Annapolis 21401 841-3407	23	Prince George's County	Appropriations	11
Sen. Decatur W. Trotter	313 SOB Annapolis 21401 841-3148	313 SOB Annapolis 21401 841-3148	24	Prince George's County	Budget & Taxation	10
Del. Nathaniel Exum	204 HOB Annapolis 21401 841-3065	5611 Landover Rd. Hyattsville 20784 277-7501	24	Prince George's County	Economic Matters	15
Del. Sylvania W. Woods, Jr.	201 HOB Annapolis 21401 841-3074	5611 Landover Rd. Hyattsville 20784 277-7503	24	Prince George's County	Constitutional & Administrative Law	11
Sen. Albert R. Wynn	302 SOB Annapolis 21401 841-3127	8700 Central Ave. Suite 306, Landover 20785 350-5055	25	Prince George's County	Judicial Proceedings	6
Del. Ulysses Currie	203 HOB Annapolis 21401 841-3076	7315 Calder Drive Capitol Heights 20743 350-3345	25	Prince George's County	Appropriations	3
Del. Dennis C. Donaldson	313 HOB Annapolis 21401 841-3391	313 HOB Annapolis 21401 841-3391	25	Prince George's County	Ways & Means	11
Del. Juanita Miller	203 HOB Annapolis 21401 841-3076	P.O. Box 226 Suitland 20746 772-2537	25	Prince George's County	Economic Matters	3
Sen. Frank J. Komenda	402A SOB Annapolis 21401 841-3092	402A SOB Annapolis 21401 841-3092	26	Prince George's County	Budget & Taxation	14
Del. Rosa Lee Blumenthal	205 HOB Annapolis 21401 841-3012	4400 Stamp Rd., Ste. 212 Temple Hills 20748 423-4130	26	Prince George's County	Judiciary	3
Del. Christine M. Jones	205 HOB Annapolis 21401 841-3012	3518 Everest Dr. Hillcrest Hghts. 20748 505-2400	26	Prince George's County	Economic Matters	7
Del. Gloria Lawlah	205 HOB Annapolis 21401 841-3012	3801 24th Ave. Hillcrest Heights 20748 894-3082	26	Prince George's County	Constitutional & Administrative Law	3

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Sen. Thomas V. Mike Miller, Jr.	H107 State House Annapolis 21401 841-3700	H107 State House Annapolis 21401 841-3700	27	Prince George's County	President of the Senate	15
Del. Gary R. Alexander	206 HOB Annapolis 21401 841-3083	11414 Livingston Rd. Ft. Wash. Prof. Park Ft. Washington 20744 292-3300	27	Prince George's County	Economic Matters	3
House Vacancy	161 HOB Annapolis 21401 841-3534		27	Prince George's County		
Del. Joseph F. Vallario, Jr.	206 HOB Annapolis 21401 841-3083	5210 Auth Rd., 6th Flr. Suitland 20746 423-8100	27	Prince George's County	Judiciary	14
Sen. Lewis R. Riley	409 SOB Annapolis 21401 841-3645	Box 130 Parsonsburg 21849 742-3999	38	Somerset, Wicomico, Worcester	Budget & Taxation	10
Del. Norman H. Conway	416 HOB Annapolis 21401 841-3425	1312 Whittier Dr. Salisbury 21801 543-9060	38	Somerset, Wicomico, Worcester	Ways & Means	3
Del. Daniel M. Long	121 HOB Annapolis 21401 841-3488	Box 220 Westover 21871 543-1300	38	Somerset, Wicomico, Worcester	Judiciary	7
Del. Shirley Pilchard	413 HOB Annapolis 21401 841-3431	RFD #3, Box 100 Pocomoke 21851 632-0473	38	Somerset, Wicomico, Worcester	Judiciary	1

The Epidemiology of AIDS in Maryland, 1981 - 1987

Joseph T. Horman DVM, MPH; Ebenezer Israel MD, MPH; and Gillian Ann van Blerk MD, MPH

From 1981 through 1987, a total of 1,068 AIDS cases were diagnosed in Maryland; 62.8 percent occurred in the homosexual/bisexual male cohort followed by intravenous drug abusers, 21.8 percent. Time trends suggest that proportionally fewer cases of AIDS will occur among homosexual/bisexual males and transfusion patients, and more cases will appear among intravenous drug abusers and heterosexuals.

The February *Maryland Medical Journal* will be devoted to AIDS and HIV Infection: Living Long and Living Well, a group of articles compiled by Med Chi's Committee on AIDS, Chairman Donald M. Pachuta MD. The following article from Maryland's Department of Health and Mental Hygiene tracing the incidence of the appearance of AIDS as a reportable disease in this state serves as an introduction to next month's special issue.

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Although a new illness, Acquired Immune Deficiency Syndrome (AIDS), was first described in June 1981,[1] Maryland's first case was reported in October 1981. In June 1983, confirmed AIDS was made a reportable disease in Maryland. Through May 31, 1989, 1,752 cases were reported to the Maryland Department of Health and Mental Hygiene (DHMH), amounting to slightly more than 3.5 of every 10,000 Marylanders. Maryland's cumulative case rate of 174 per million population ranked seventh (as of November 2, 1987) among all states (including District of Columbia).[2] AIDS has had and is continuing to have dramatic political, economic, and social impact on Marylanders. Understanding the dynamics of the epidemic is important in developing and implementing a response to the outbreak. We describe the AIDS epidemic in Maryland for the period 1981 through 1987.

Methods

AIDS cases are reported by health care providers to DHMH, examined for completeness of pertinent information, and entered into the case registry if the Centers for Disease Control (CDC) surveillance case definition is met. The case definition has changed several times, and efforts have been made to update older data to the new case definition.

Two additional surveillance systems are used to enhance reporting by physicians. In Maryland counties, hospital infection-control practitioners are an important source of AIDS case reports. In Baltimore City, reporting of laboratory evidence indicative of

possible AIDS is the primary method for identifying AIDS cases. A validation study using hospital discharge data for the years 1985 through 1987 suggests that 96 percent of all cases are found through the current reporting systems.

All AIDS cases reported (as of March 15, 1989) with a diagnosis during the period 1981 through 1987 are included. The year 1988 is excluded since case reporting at this writing is not nearly as complete for 1988 as for prior years. For some analyses, data for the periods 1981-1984 and 1985-1987 are examined in an effort to eliminate the problem of the small number of cases in the earlier years. In regard to exposure category, cases with more than one risk factor are tabulated only in the category listed first except for the category "IVDA, homosexual/bisexual male."

Results

From 1981 through December 31, 1987 a cumulative total of 1,068 cases were diagnosed in Maryland. Of these, 1,017 were nonincarcerated adults, 28 incarcerated adults, and 23 children. The pediatric cases are discussed separately and are not included in the data presented unless so indicated.

The number of new cases has increased each year (Table 1), but the rate of increase generally has declined. An exception occurred between 1986 and 1987 when there was a slight increase as compared to the previous years. Possibly the broadening of the case definition in 1987 accounted for this. Maryland's share of the national cumulative total of reported cases through 1987 (59,265) was 1.7 percent, ranking it eleventh. [3]

Geographical Distribution

All but one Maryland jurisdiction reported AIDS cases (excluding cases incarcerated at time of diagnosis) (Figure 1); however, 79 percent resided in three subdivisions: Baltimore City, and Prince George's and Montgomery counties. Cases are clustered in the urban and suburban areas of Maryland.

The state's overall cumulative case rate per million population was 234 for nonincarcerated adults (Table 2), while the rate for all adults was 240 (Table 3).

Table 1. All Adult AIDS Cases, by Year of Diagnosis Maryland, 1981 - 1987

Year of Diagnosis	Number of Cases		Cumulative Number of Cases
1981	4	(4)	4
1982	6	(6)	10
1983	32	(32)	42
1984	84	(81)	126
1985	193	(173)	319
1986	277	(210)	596
1987	449	(269)	1,045

Figures in parentheses equal number deceased as of 2/28/89

Baltimore City had the highest rate of 527 followed by 355 for Prince George's County (Table 2). The small rural county of Caroline was third with a cumulative incidence rate of 337. The rates ranged from Queen Anne's 0 to Baltimore City's 527.

Exposure Categories*

The majority (67.5 percent) of AIDS cases in Maryland occurred among homosexual/bisexual males (including homosexual/bisexual male Intravenous Drug Abusers [IVDAs]) followed by 17.1 percent in heterosexual intravenous drug abusers (Table 4). Maryland's percentage breakdown by exposure category differed somewhat from the national statistics. Maryland had a greater proportion of transfusion and heterosexual contact cases and slightly less homosexual/bisexual males and IVDAs.

Homosexual/Bisexual Male From 1981 through 1987, 656 homosexual/bisexual male cases (62.8 percent of total) were diagnosed in Maryland. Over these years, the proportion of cases in this category has declined (Table 5). For the years 1981 through 1984, the proportion of homosexual/bisexual males comprised 69.4 percent of the total cases, whereas for the years 1985-1987 this had declined to 61.9 percent. However, if the IVDA homosexual/bisexual category is included with the homosexual/bisexual male category the decrease was less, from 71.8 percent to 66.9 percent.

Intravenous Drug Abuser (IVDA) Twenty-two percent (228) of Maryland's cases were IVDAs (both homosexual/bisexual and heterosexual male) compared to 25 percent of national cases (Table 4). Twenty-two cases occurred during 1981 through 1984 and 206 for the period 1985-1987. The proportion of male heterosexual IVDAs remained stable for the period 1981-1984 versus 1985-1987 (Table 5). However, both female IVDA cases and homosexual/ bisexual male IVDA cases increased during these time periods. Overall, the proportion of IVDA cases increased from 17.7 percent in 1981-1984 to 22.4 percent in 1985-1987.

* Since populations at risk are not known for the various categories, data are presented as percentage of the total reported and not as case rates (that is, case per 1,000,000 population).

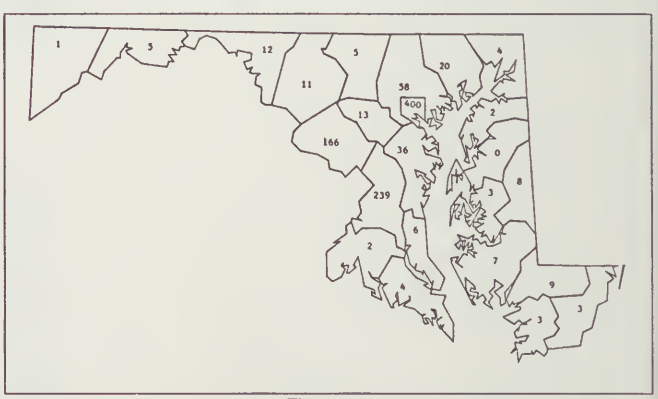


Figure 1.
Nonincarcerated Adult AIDS Cases in Maryland, 1981 - 1987

Table 2. Cumulative AIDS Cases, Population and Cases per Million Population*
1981 through December 31, 1987, Maryland
(Nonincarcerated Adults)

County	White		Black		Other		Total	
	Cases/Pop	Rate per Million	Cases/Pop	Rate per Million	Cases/Pop	Rate per Million	Cases/Pop	Rate per Million
Baltimore City	127/326,050	= 389	263/422,855	= 622	10/10,265	= 974	400/759,170	= 527
Allegany	5/75,270	= 66	0/1,108	= 0	0/262	= 0	5/76,640	= 65
Anne Arundel	25/343,360	= 73	11/42,149	= 261	0/6601	= 0	36/392,110	= 92
Baltimore County	44/596,400	= 74	12/57,590	= 208	2/12,140	= 164	58/665,225	= 87
Calvert	2/31,410	= 64	4/7,957	= 503	0/223	= 0	6/39,590	= 152
Caroline	3/19,720	= 152	5/3,950	= 1,266	0/90	= 0	8/23,760	= 337
Carroll	4/101,750	= 39	1/2,818	= 358	0/692	= 0	5/105,260	= 48
Cecil	3/61,170	= 49	1/3,244	= 308	0/406	= 0	4/64,820	= 62
Charles	2/65,960	= 30	0/15,481	= 0	0/1,289	= 0	2/82,730	= 24
Dorchester	1/21,140	= 47	5/8,575	= 583	1/135	= 7,407	7/29,850	= 234
Frederick	8/118,100	= 68	3/6,178	= 486	0/912	= 0	11/125,190	= 88
Garrett	1/26,390	= 38	0/24	= 0	0/36	= 0	1/26,450	= 38
Harford	10/136,500	= 73	8/12,214	= 655	2/2,426	= 824	20/151,140	= 132
Howard	11/117,660	= 93	2/15,450	= 129	0/3,690	= 0	13/136,800	= 95
Kent	1/13270	= 75	1/3,422	= 292	0/108	= 0	2/16,800	= 119
Montgomery	121/528,830	= 229	37/59,938	= 617	8/38,742	= 206	166/627,510	= 264
Prince George's	85/370,000	= 230	147/275,010	= 534	7/28,600	= 245	239/673,600	= 355
Queen Anne's	0/23,890	= 0	0/3,925	= 0	0/145	= 0	0/27,960	= 0
Somerset	1/12,640	= 79	1/6,231	= 160	1/109	= 9,174	3/18,980	= 158
St. Mary's	3/53,900	= 56	1/9,297	= 108	0/973	= 0	4/64,170	= 62
Talbot	2/21,350	= 94	1/5,397	= 185	0/73	= 0	3/26,820	= 112
Washington	9/106,860	= 84	3/5,276	= 569	0/864	= 0	12/113,000	= 106
Wicomico	2/52,400	= 38	7/14,138	= 495	0/512	= 0	9/66,450	= 135
Worcester	2/25,760	= 78	1/7,910	= 126	0/190	= 0	3/33,850	= 89
Total	472/3,249,780	= 145	514/990,137	= 519	31/109,483	= 283	1,017/4,349,400	= 234

* Based on 1984 estimated population.

Recipients of HIV-Infected Blood and Blood Products Maryland's first transfusion-associated male case was not diagnosed until 1983 (for female, 1985). Since then, the number of cases attributable to blood transfusion has increased steadily although the proportion of the total is relatively small at 6.2 percent (Table 4). However, Maryland's proportion was different than that nationwide, 2 percent. In 1985, 7.8 percent (15 cases) of all Maryland cases were attributable to blood transfusion. In 1987, this had declined to 6.0 percent (27 cases) of the total. Approximately 44 percent (14 cases) of white female cases were due to transfusion (Table 4). A total of 10 cases in hemophiliac patients were reported.

Heterosexual Contact This exposure category ranked fourth in terms of number of cases, accounting for 56 or 5.4 percent of the total (Table 4). The number of new cases has increased slowly but steadily since 1983 when the first case in this category was diagnosed in Maryland. Proportionally, this exposure category represented 5.6 percent of those diagnosed in 1981 through 1984 versus 5.3 percent in 1985-1987 (Table 5). Thirty-three (59 percent) of the 56 total were female. Of these, 16 were included in this category by virtue of no-risk category other than being born in countries where heterosexual HIV transmission is believed to be common. The proportion of male cases for the period 1981-1984 (3.2 percent) decreased in comparison to the proportion in 1985-1987 (2.1 percent). The proportion for female cases increased (2.4 to 3.2 percent). Heterosexual contact accounted for 25 percent and 32 percent of the white female and black female cases, respectively (Table 4).

Undetermined Since 1981, 30 cases have been listed in the "undetermined" category meaning that for

Table 3. Cumulative Incidence Rates, All Adult AIDS Cases
Maryland, 1981 - 1987

Sex and Race	Population*	Cases	Rate per Million
Male			
Black	472,539	462	978
White	1,583,560	445	281
Other	52,921	30	567
Subtotal	2,109,020	937	444
Female			
Black	517,598	75	144
White	1,666,220	32	19
Other	56,562	1	18
Subtotal	2,240,380	108	48
Race			
White	3,249,780	477	147
Black	990,137	537	542
Other	109,483	31	283
Total	4,349,400	1,045	240

* Based on 1984 estimated population.

Table 4. Distribution of All Adult AIDS Cases, Maryland, 1981 - 1987 (Percents)

Age (Yrs.)	Race and Sex: White M	White F	Black M	Black F	Other M	Other F	Total	US*
13-19	0.4	3.1	0.4	2.7	-	-	0.7	1
20-29	18.0	12.5	23.6	29.3	13.3	100.0	21.0	21
30-39	38.9	28.1	46.8	48.0	46.7	-	42.9	46
40-49	20.9	18.8	21.6	16.0	26.7	-	21.0	21
> 49	21.8	37.5	7.6	4.0	13.3	-	14.4	10
Exposure Category								
Homo/ Bi Male	80.2	-	60.0	-	73.3	-	62.8	65
IVDA, Hetero	2.7	21.9	24.2	60.0	10.0	-	17.1	17
IVDA, Homo/Bi	3.4	-	6.9	-	6.7	-	4.7	8
Hemophiliac	1.8	-	0.4	-	-	-	0.9	1
Heterosexual contact	1.3	25.0	3.5	32.0	3.3	100.0	5.4	4
Transfusion	9.2	43.8	1.1	6.7	-	-	6.2	2
Undetermined	1.3	9.4	3.9	1.3	6.7	-	2.9	3
Disease								
KS	15.5	-	6.5	2.7	-	-	10.1	11
Other opport	26.3	50.0	31.8	46.7	-	-	31.3	26
PCP	58.2	50.0	61.7	50.7	-	-	58.6	63
Number of cases	445	32	462	75	30	1	1,045	-

* SOURCE: AIDS Weekly Surveillance Report - US, January 11, 1988. AIDS Program, Center for Infectious Diseases, Centers for Disease Control.

various reasons (for example, died before interview, refused interview, no admitted risk) a risk factor could not be determined for these cases. Twenty-six (2.8 percent) of 937 males and 4 (3.7 percent) of 108 females fell into this category. The proportion of "undetermined" has decreased since 1981-1984 (4.0 percent) compared to 1985-1987 (2.7 percent) (Table 5).

Geographic Variations

Comparison of exposure category by geographic area of the state (Table 6) revealed that over half (54.7 percent) of the IVDA cases (both homosexual/bisexual male and heterosexual) resided in Baltimore City. An additional 25 percent of IVDA cases resided in either Prince George's or Montgomery counties. A majority of the remaining exposure category cases resided in Prince George's or Montgomery counties. For example, 45.3 percent of blood transfusion cases and 66.6 percent of hemophiliacs resided in either Montgomery or Prince George's counties. The less populous geographic regions contributed a relatively small proportion of the total cases in any exposure category. In fact, the highest proportion was Eastern Shore's 14.5 percent share of heterosexual cases.

Race In Maryland, blacks and other minorities have been disproportionately impacted by AIDS. The cumulative incidence rates in blacks was 542 per million, over 3.5 times that for the white population (Table 3). The "other"** minority rate was 283 per million or twice that for whites. The 537 cases among blacks represented 51.4 percent of the total cases; yet blacks comprised only 22 percent of Maryland's population. Black women and men accounted for 83 percent of IVDAs cases (both IVDA exposure categories) and 71 percent of the cases due to heterosexual contact. Whites pre-dominated in the exposure cate-gories dealing with blood and blood products and homosexual/ bisexual males. Black cases were more likely to be "undetermined" than white cases. The proportion black was 57.1 percent for the years 1981 through 1984 and decreased to 50.5 percent for 1985-1987 (Table 7).

The majority of the black cases occurred in urban areas. However, cumulative incidence rates for blacks were unexpectedly high in

Table 5. Distribution of All Adult AIDS Cases by Exposure Category and Year of Diagnosis Maryland, 1981 - 1987 (Percents)

Exposure Category	Year of Diagnosis: 1981	1982	1983	1984	1985	1986	1987	1981-84	1985-87
A. Homo/Bi male	75.0	66.7	68.8	67.8	62.7	64.6	60.1	69.4	61.9
B. IVDA heterosexual	25.0	-	18.7	14.3	13.9	14.0	20.9	15.3	17.4
Male	-	-	12.5	13.1	9.8	10.8	14.0	12.1	12.2
Female	25.0	-	6.2	1.2	4.1	3.2	6.9	3.2	5.2
C. IVDA homo/Bi male	-	-	3.1	2.4	4.7	5.4	4.9	2.4	5.0
D. Hemophiliac	-	16.7	-	-	2.6	0.7	0.4	0.8	1.0
E. Heterosexual contact	-	-	3.1	7.2	4.7	6.8	4.6	5.6	5.3
Male	-	-	3.1	3.6	2.1	1.8	2.2	3.2	2.1
Female	-	-	-	3.6	2.6	5.0	2.4	2.4	3.2
F. Transfusion	-	-	3.1	4.8	7.8	6.5	6.0	4.0	6.5
Male	-	-	3.1	4.8	5.7	4.7	3.8	4.0	4.4
Female	-	-	-	-	2.1	1.8	2.2	0.0	2.1
G. Undetermined	-	16.7	3.1	3.6	1.8	2.4	2.9	4.0	2.7
Male	-	-	3.1	3.6	3.1	1.1	2.9	3.2	2.4
Female	-	16.7	-	-	0.5	0.7	-	0.8	0.3
Number of cases	4	6	32	84	193	277	449	124	921

** Other minorities excluding blacks.

some rural counties on Maryland's Eastern Shore. For example, Caroline and Dorchester counties had rates of 1,266 and 503 respectively (compared to Baltimore City's 622) (Table 2).

Gender Of the adult cases, 10.3 percent (108) were female (Table 7). The male-to-female case ratio was 8.7. Temporally, the percentage of female cases had increased from 6.3 percent for the years 1981-84 to 10.9 percent for 1985-1987. Approximately 70 percent of the female cases were black as compared to 49.3 percent of the males. The major risk factor for females was heterosexual IVDA (48.1 percent), followed by heterosexual contact (30.6 percent) and blood transfusions (17.6 percent). If only white females were considered, almost 50 percent had blood transfusions as a risk factor (Table 4) as compared to 6.7 percent for black females. Of black females, 60 percent were heterosexual IVDAs.

Seventy percent of male cases were homosexual/bisexual males. White males had a higher percentage in the homosexual/bisexual male and transfusion categories as compared to black males who had more IVDA and heterosexual contacts. White males had a higher percentage of Kaposi's Sarcoma (KS) as compared to black males (Table 4).

The overall cumulative incidence rate for males was 444 per million versus 48 for females (Table 3). Both black males and black females exceeded the cumulative incidence rate for white males and white females by 3.5 and 7.6 times, respectively.

Age Of adult cases, 448 (42.9 percent) were 30 to 39 years of age (Table 4). Only seven cases were between 13-19 years of age. Of these, four were transfusion related, two IVDAs, and one heterosexual. Whites, particularly white females (37.5 percent) were more likely to be over age 49 as compared to blacks. Maryland tended to have a greater proportion in the over 49 year age category than did the US as a whole. The majority of women were in their reproductive years.

Mortality Through February 28, 1989, of the 1,045 AIDS cases diagnosed in 1981-1987, 775 (74 percent) have died. The mortality rate increased as the interval from date of diagnosis increased (Table 1).

Table 6. Distribution of Nonincarcerated Adult AIDS Cases by Region and Exposure Category Maryland, 1981 - 1987 (Percents)

Region	Homo/ Bisexual Male	IVDA, Hetero-sexual	IVDA, Homo/Bi Male	Hemo-philiac	Hetero-sexual	Trans-fusions	Unde-termined	Number of Cases
Baltimore City	39.0	54.8	54.3	11.1	29.1	14.1	17.8	400
Baltimore Metro	12.0	11.4	15.2	22.2	10.9	20.3	7.1	127
PG/Montgomery Counties	42.4	25.9	21.7	66.6	41.8	45.3	67.8	405
Southern Maryland	1.1	0.6	4.3	0.0	0.0	3.1	0.0	12
West Central	2.2	3.0	4.3	0.0	3.6	7.8	0.0	28
Eastern Shore	3.1	3.6	0.0	0.0	14.5	4.7	7.1	39
West Western	0.3	0.6	0.0	0.0	0.0	4.7	0.0	6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of cases	649	166	46	9	55	64	28	1,017
Percent of total	63.8	16.3	4.5	0.9	5.4	6.3	2.8	100.0

Table 7. All Adult AIDS Cases by Sex, Race, and Year of Diagnosis Maryland, 1981 - 1987

Sex	pre-1984	1984	1985	1986	1987	1981-84	1985-87	Total
Male	38	80	175	247	397	118	819	937
Female	4	4	18	30	52	8	100	108
Of total, % female	9.5	4.8	9.3	10.8	11.6	6.3	10.9	10.3
Race								
White	21	30	92	126	208	51	426	477
Black	19	53	94	139	232	72	465	537
Hispanic	2	1	7	10	9	3	26	29
Asian	0	0	0	2	0	0	2	2
Of total, % black	45.2	63.1	48.7	50.2	51.7	57.1	50.5	51.4
Of total, % Hispanic	4.8	1.2	3.6	3.6	2.0	2.4	2.8	2.8
Total number	42	84	193	277	449	126	919	1,045

Disease at Diagnosis Of the 1,045 total cases, 10 percent had an initial diagnosis of Kaposi's Sarcoma, 31 percent other opportunistic infections, and 59 percent, *Pneumocystis carinii pneumonia* (PCP). This breakdown was not too different than national statistics (Table 4).

Pediatric Cases Through 1987, 23 pediatric cases (less than 13 years old) have been diagnosed in Maryland (Table 8). Eighteen (or 78 percent) were infected perinatally by a mother who was infected or at risk of infection with HIV. The remaining 5 patients

Table 8. Pediatric AIDS Cases by Year of Diagnosis Maryland, 1981 - 1987

Year	Number		Cumulative Total
1983	1	(1)*	1
1984	1	(0)	2
1985	7	(4)	9
1986	5	(5)	14
1987	9	(5)	23

* Figures in parentheses equal number deceased as of June 20, 1989.

(22 percent) were infected by blood transfusion. Fourteen (61 percent) were less than 12 months old; the oldest was five years old. Fifteen (65 percent) were male. Seventeen (75 percent) were black, 5 (22 percent) white, and 1 (4 percent) Hispanic. Eleven (48 percent) were diagnosed with PCP and the remainder (52 percent) with other opportunistic infections. Twenty-one (91.3 percent) had been diagnosed since 1984. Fifteen (65.1 percent) were reported from Baltimore City, five (24.6 percent) from Prince George's County, and one each from Anne Arundel, Montgomery, and Talbot counties.

Discussion

During the first seven years of Maryland's epidemic of AIDS, the number of new cases has increased each year. Given a median incubation of perhaps seven years or longer, cases should continue to increase since future cases are already infected. Although the rate of increase is difficult to predict, the trend is downward. If one applies Maryland's current 1.7 percent share of the national total to the predicted 270,000 US cumulative total by the end of 1991,[4] Maryland will have 4,590 cumulative cases at the end of 1991. This means that 3,522 new cases should occur during the three-year span of 1988, 1989, and 1990.

Although blacks represent only approximately 22 percent of Maryland's population, over 50 percent of the patients have been black. Blacks accounted for over 80 percent of the IVDAs and approximately 70 percent of the cases due to heterosexual contact. Since time-trend data suggest that proportionally more Maryland cases will occur in these exposure categories (IVDAs and heterosexual contact) and less in the homosexual/bisexual male and blood transfusion exposure categories, one would expect the imbalance among blacks to worsen in the future.

The fact that Maryland had a greater proportion (6.2 percent) of blood transfusion-associated cases than the national distribution (2 percent) is difficult to explain. Male transfusion-associated cases outnumbered females by 2.4 times. However, for white females, over 40 percent of the cases were due to blood transfusion in contrast to black females where this accounted for 6.7 percent of the cases. In an attempt to examine this issue more closely, cumulative incidence rates by sex and race (Table 9) were developed based on

Table 9. Transfusion-Associated Cases by Race and Sex Maryland, 1981 - 1987

	Population	Transfusion Cases	Rate/ Million*
White	3,249,780	55	16.9
Black	990,137	10	10.0
	4,239,917		
White male	1,583,560	41	25.8
White female	1,666,220	14	8.4
	3,249,780		
Black male	472,539	5	10.5
Black female	517,598	5	9.5
	990,137		

* Based on 1984 estimated population.

Maryland's estimated population. With this simple analysis, one notes that rates among black females, white females, and black males do not differ dramatically. Only white males have a dramatically higher rate. Why Maryland had a higher proportion of transfusion-associated cases than the entire United States warrants further investigation. However, on a practical basis, it may be a moot point since the testing of donated blood should essentially eliminate new additions to this exposure category at some future date.

Geographic areas of Maryland have not been evenly impacted by the AIDS epidemic. The great majority of the cases has occurred in the three subdivisions: Baltimore City (39.3 percent of total cases), Prince George's County (23.5 percent) and Montgomery (16.3 percent). However, cumulative incidence rates do not follow in parallel since some of the rural counties have high rates but a relatively low number of cases, particularly in the black populations. For example, Caroline County reported only 8 cases, but due to its relatively sparse population (around 20,000), the overall cumulative case rate was 337 per million. The rate among black adults in Caroline County was 1,266 per million. Perhaps further analysis of the data will help explain this observation.

Cases among IVDA and homosexual/bisexual males were concentrated in the metropolitan areas (Table 6). This probably reflects the fact that persons practicing risks associated with these exposure categories also are clustered in these areas.

Analysis of the data for time trends suggests that a greater proportion of the future cases will be IVDA and heterosexual contact cases and fewer homosexual/bisexual men and transfusion-associated cases. More will be female. Although comparison of the periods 1981 through 1984 and 1985 through 1987 for trends regarding race would suggest a decrease in the proportion black (55.1 to 50.6 percent), 1984 had an unusually high percentage of blacks (63.1 percent), which affected the 1981 to 1984 period value. The reason for 1984's high proportion of black patients is not known.

If this exception is disregarded, the trend reflects a steady increase in the proportion of black patients.

For the category "IVDA, heterosexual," the national ratio of male to female approximates 3.3; Maryland's corresponding ratio is 2.4. That females account for a greater proportion of Maryland's heterosexual IVDAs AIDS cases merely may reflect the sex ratio of IVDAs in Maryland. Sufficient information is not currently available to confirm this or to offer an alternate explanation. However, most of the female patients are of childbearing age. This increases the possibility of proportionally more pediatric cases in the near future.

Summary

In summary, surveillance data on AIDS cases has shown a shifting pattern in the AIDS epidemic in Maryland for the period 1981 through 1987. The proportion of homosexual/bisexual male cases and transfusion-associated cases decreased while the proportion of IVDA and heterosexual contact cases increased. The percentage of female cases steadily increased as did the proportion of black cases. Although cases were clustered geographically in Maryland's more populous areas, some small rural counties had relatively high incidence rates, especially among the black community.

CDC's case definition is in reality a surveillance definition identifying the terminal stage of a disease process that began anywhere from two to ten years ago (or longer) at the time of infection. Although information about cases is valuable, it does not give an accurate reflection of what currently is happening in the way of transmission of HIV infection. More recent information about HIV infection can be obtained by conducting serosurveys in various populations. Repetition of these surveys also provides information about incidence. The AIDS Administration is either conducting or planning a number of serosurveys that should answer questions about the current status of HIV infection and transmission in various Maryland populations.

Addendum

Preliminary results from 1988 AIDS case reports support the epidemic trends noted here (see Table 10 and Figure 2). The proportion homosexual/bisexual male cases has continued to decrease as has transfusion-associated cases, whereas IVDA and heterosexual contact cases have increased. Black cases represented 59.6 percent of the 1988 total and female cases, 14 percent, both fairly substantial increases and in accordance with the trends noted for 1981 through 1987.

Table 10. All Adult AIDS Cases by Exposure Category and Year of Diagnosis Maryland, 1981-1987 and 1988

Exposure Category	1981-1987	1988*
Homosexual/bisexual male	62.8	55.0
IVDA, heterosexual	17.1	24.4
IVDA, homosexual/bisexual male	4.7	6.6
Hemophiliac	0.9	0.7
Heterosexual contact	5.4	6.6
Transfusions	6.2	3.8
Undetermined	2.9	2.8
Total number of cases	1,045	573

* Preliminary data as of 9/30/89

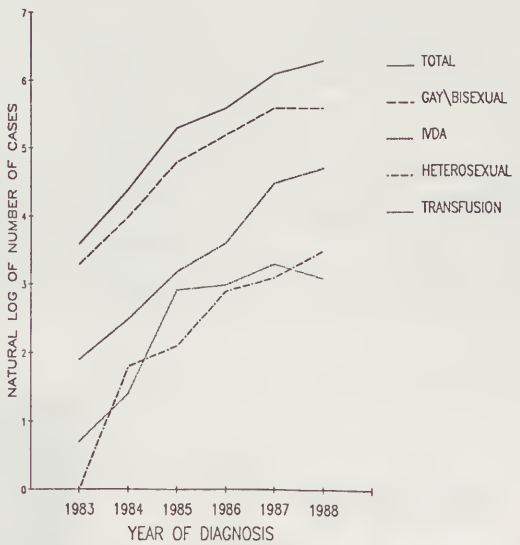


Figure 2. All Adult AIDS Cases by Exposure Category and Year of Diagnosis Maryland 1983 - 1988

Acknowledgment

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References

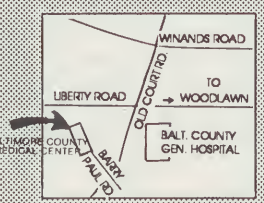
1. CDC.Pneumocystis pneumonia - Los Angeles. MMWR 1981;30:250.
2. CDC.Human Immunodeficiency Virus Infection in the United States: A Review of Current Knowledge. MMWR 1987; 36(Supplement 5-6):1-48.
3. CDC.AIDS Weekly Surveillance Report - U.S. January 11, 1988.
4. Moran WM, Curran, JW. Acquired Immunodeficiency Syndrome: Current and Future Trends. Public Health Report 1986;101:459-65.

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Diabetic Retinopathy

Doctor, I have had diabetes for seven years and I see fine, but I have heard from friends who have diabetes that vision can be severely affected by diabetes. What are the complications that can occur, and what part of the eye is affected? Can complications be prevented?

The majority of patients with diabetes continue to see well throughout their lives. As in other complications associated with diabetes, patients with Juvenile Diabetes (Type I) are more severely affected than those with Maturity Onset Diabetes (Type II).

Although many conditions of the eye can develop as a result of having diabetes, including cloudy vision due to cataracts and double vision as a result of eye muscle weakness, perhaps the most difficult complication to treat is diabetic retinopathy.

In diabetic retinopathy, small, fragile new vessels develop in the retina as the result of insufficient oxygen supplied to the retina. The vessel walls thickened by diabetes do not allow oxygen to reach the tissues as easily as they would otherwise. In an attempt to compensate for this, new vessels bud out from the vascular tree. Unfortunately, these new vessels are not very sturdy and tend to leak and even rupture. The porosity of the vessels allows serum to leak through their walls and create exudates that then can block vision. In more advanced states of this condition, fragile vessels actually rupture and tear, causing bleeding either within the retina itself or within the vitreous cavity. This decreases vision markedly if it is in front of the macular area.

About 50 percent of patients who have had diabetes for at least 12 years will have some evidence of diabetic retinopathy. Very often in the early stage the changes are minimal and do not seriously affect vision. If the condition progresses to the point there is macular edema or multiple new vessels with evidence of hemorrhage, treatment is undertaken. Initial treatment consists of Argon Laser photocoagulation of retinal tissue. This has the effect of decreasing demand for oxygen and, possibly with some intermediate steps, causes the new fragile vessels to cease to grow and to atrophy.

Unfortunately, this is not a cure for the disease but rather a means of slowing and sometimes halting progression. The use of the laser for this treatment doubles the chance of retaining good usable vision. This still leaves more than 50 percent of patients susceptible to further episodes of bleeding and edema.

When bleeding first occurs, it usually clears, allowing the patient to see reasonably well again. However, after multiple bleeds there may come a time when clearing does not take place. In this situation, vitrectomy is performed, during which blood, vitreous, and often vessels that have grown into the vitreous are removed from the eye. There is a moderate success rate with this procedure, although a variety of complications can develop.

For early detection of diabetic retinopathy and other conditions affecting the eyes of diabetic patients, they should be seen yearly by their ophthalmologists. The physician managing the diabetes should maintain good glycemic control and examine the fundi between visits to the ophthalmologist. Early recognition and treatment will improve the chance of maintaining good vision.

Submitted by:
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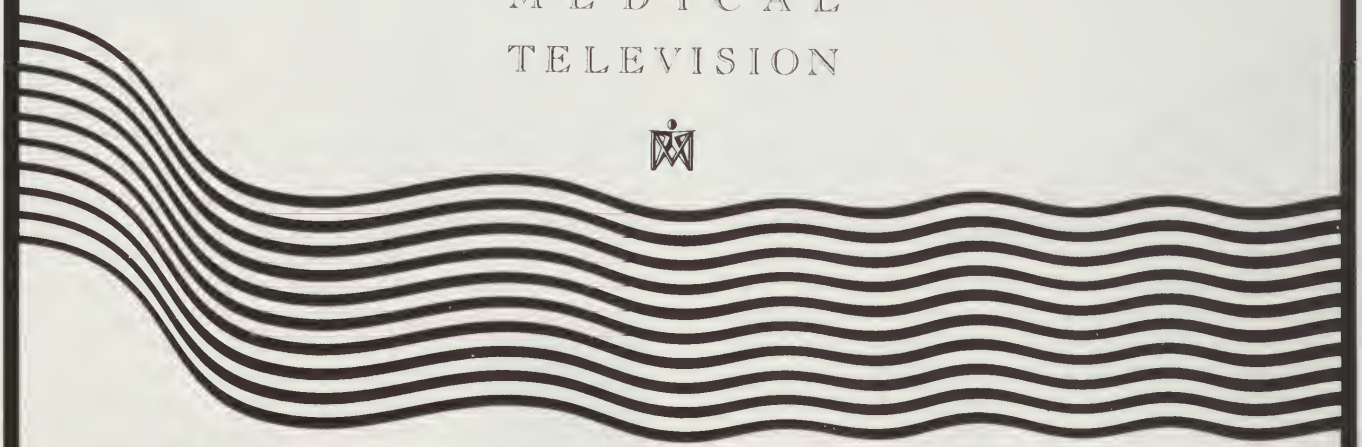
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David Murray, Dr. Yow, Dr. Atkins and Angelo Troisi at press conference.



Medical Mutual Liability's Chairman, Dr. Raymand Yow, announces dividend credit during press conference.

Medical Mutual Announces Dividend Credit for 1990

As a result of tort reform legislation, the Medical Mutual Liability Insurance Society of Maryland announced on October 12, 1989 that it will offer a 20 percent dividend credit in liability insurance rates for all Medical Mutual members who renew their policies in 1990. Raymond M. Yow MD, Chairman of the Board and Chief Executive Officer for the Medical Mutual Liability Insurance Society of Maryland, the largest insurance provider for Maryland physicians, made the announcement at a press conference held at Med Chi. Dr. Yow stated this one-time credit is in addition to any other discounts a member may be eligible to receive.

Dr. Yow also announced that the maximum charge for the Rate Stabilization Reserve Fund (a reserve fund designed for potential increases in the number of claims filed based upon actuarial input) for all policies will be reduced to 15 percent as of January 1, 1990, down from the current maximum of 24 percent.

The dividend credit and reduction in the Rate Stabilization Reserve Fund are the direct results of the cumulative effects of tort reform and insurance legislation enacted by the Maryland General Assembly over the last several sessions. Since the enactment of this legislation, Medical Mutual has passed the benefits of tort reform to its members. In November 1988, Medical Mutual offered a 10 percent discount to all its policyholders who renewed their policies in 1989, and in April 1989 the company did not seek a rate increase for its more than 5,700 member physicians.

During the press conference, Dr. Yow said that the health care community is indebted to the General Assembly for making tort reform possible. "Their appreciation of the very technical but very important issues involved have produced the kind of benefits that we hoped to see for our members."

Dr. Yow also commended the efforts of Governor William Donald Schaefer and Lieutenant Governor Melvin Steinberg along with the legislative leadership for their concern for quality health care and their efforts to stabilize the present liability environment. In addition, Dr. Yow thanked Med Chi's President, Raymond M. Atkins, MD and Executive Director, Angelo J. Troisi, FACHE for their continued efforts to keep the issue of tort reform at the forefront of the legislative agenda.

"We promised the General Assembly—and the thousands of Maryland physicians who depend on Medical Mutual for their liability insurance—that we would pass along any financial relief that resulted from tort reform," said Dr. Yow during the conference. "Because we are a mutual company, these financial benefits are passed directly to our members, rather than to stockholders or other investors."

Officials from Medical Mutual and Med Chi expressed hope that more obstetricians will be able to go back into the profession because of this action. According to Dr. Yow, the average obstetrician in Maryland pays about $70,000 a year in malpractice insurance premiums. As a result of the discount, an obstetrician could save about $14,000 annually. Obstetricians who have been Medical Mutual members for five years or more, the reserve fund fee would drop from 19 to 10 percent.

Several local media representatives covered the press conference including reporters from the *The Evening Sun*,*The Baltimore Business Journal*,*WBAL Radio* and the Associated Press.

The story appeared on the front page of *The Baltimore Sun* on October 13, 1989. ■

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Lee H. Riley Jr., MD, professor of orthopedic surgery at The Johns Hopkins University School of Medicine and orthopedic surgeon-in-chief at The Johns Hopkins Hospital, has been appointed chairman of the medical board of The Johns Hopkins Hospital. He succeeds *Paul McHugh MD*, director of the department of psychiatry.

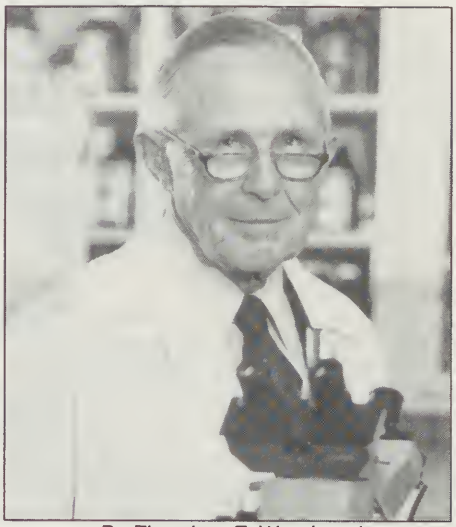
Dr. Riley came to Hopkins in 1957 as an intern in general surgery after graduating from the University of Oklahoma School of Medicine. He completed his orthopedic surgery residency at Hopkins in 1963, joined the faculty, and was promoted to professor in 1972. He has acted as a consultant to the Food and Drug Administration and also has been involved in US-Soviet exchanges. Since 1980 he has served as coordinator of a US-USSR collaborative program in arthritis. Riley is best known for his work on artificial hip and knee implants and replacements and for surgery of the cervical spine.

The medical board at Hopkins directs the way medical care is administered by the hospital staff. It advises the Board of Trustees on all matters pertaining to the medical staff, quality assurance and the appropriateness of patient care, the accreditation of the hospital and medical education and research programs.

■ ■ ■

William E. Signor MD has assumed the position of director of Outpatient Surgical Services at St. Agnes Hospital. Dr. Signor received his bachelor's degree in microbiology from the University of Maryland at College Park and his medical degree from the University of Maryland School of Medicine.

He served his internship and surgical residency at St. Agnes from 1965 to 1970. For two years thereafter he served as a US Air Force surgeon in Vietnam, holding the rank of Major. Dr. Signor has been a member of the St. Agnes attending staff since 1972.



Dr. Theodore E. Woodward

Theodore E. Woodward MD, Professor of Medicine Emeritus, University of Maryland School of Medicine, recently was elected to Senior membership in the Institute of Medicine of the National Academy of Sciences. Members are elected by the incumbent membership on the basis of professional achievement and of demonstrated interest, concern, and involvement with problems and critical issues that affect the health of the public.

Established in 1970 as a unit of the National Academy of Sciences (but with separate membership), the Institute is broadly based in the biomedical sciences and health professions as well as related aspects of the behavioral and social sciences, administration, law, the physical sciences, and engineering. It is concerned with the protection and advancement of the health professions and sciences, and the promotion of research and development pertinent to health. ■

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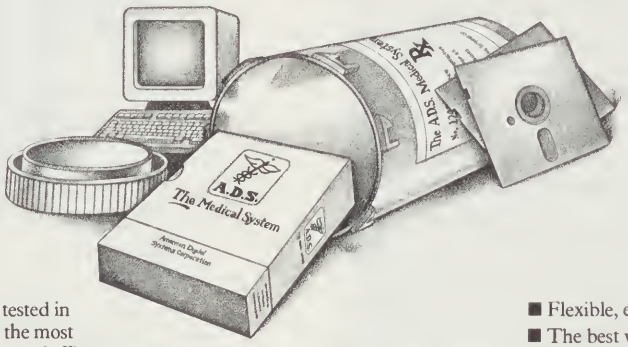
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In the Matter of
Merrill Berman MD
Before the
Maryland Board of
Physician Quality Assurance

Consent Order

On March 13, 1989 the State Board of Physician Quality Assurance (the "Board") charged Merrill Berman MD (the "Respondent") with violations of the Maryland Medical Practice Act (the "Act"). Specifically, the Board charged Applicant under Section 14-504(a)(3) and (a)(24) (1988 Cum. Supp.) of the Act which states:

> (a) Subject to the hearing provisions of Section 14-504 of this subtitle, the Board, on the affirmative vote of a majority of its full authorized membership, may reprimand any licensee, place any licensee on probation, or suspend or revoke a license if the licensee
> (3) Is guilty of immoral ... conduct in the practice of medicine;
> (24) Willfully submits false statements to collect fees for which services are not provided.

A settlement conference was held on May 3, 1989. As a result of the settlement conference, the parties have agreed to enter into this Consent Order.

Findings of Fact

1. At all times relevant to these charges, the Respondent was and is licensed to practice medicine in Maryland.
2. On December 23, 1983, Patient A sought psychiatric care from Respondent. Patient A alleged a sexual relationship occurred during the course of psychiatric care with the Respondent. Respondent insists and maintains that no such relationship existed.
3. In 1985, Blue Cross/Blue Shield of Maryland, Inc. ("BC/BS") conducted an investigation of respondent's billing practices after receiving information from the Respondent that he was unable to work for certain periods between May 1, 1984 through September 5, 1985 due to spinal surgery. Subsequently the BC/BS investigation revealed that Respondent's billing to BC/BS included 111 dates of service for 10 patients for a total of $4,683.50 for which Respondent's records did not coincide with dates on which the Respondent was available to render services. The investigation further revealed from the patients that services were rendered but not substantiated by office notes and records. One patient advised of being billed for two (2) missed appointments. Respondent agreed to permit BC/BS to withhold $4,683.50 from his account to cover the discrepancy.

Conclusions of Law

Based on the foregoing Findings of Fact, the Board finds:
1. Respondent violated Md. Health Occ. Code Ann. Section 14-504(a)(3) (1988 Cum. Supp.); and
2. Respondent violated Md. Health Occ. Code Ann. Section 14-504(a)(24) (1988 Cum. Supp.).

Order

Based on the foregoing Findings of Fact, it is this 11th day of October 1989,
ORDERED that Respondent, a physician licensed to practice medicine in Maryland is hereby formally SUSPENDED for three (3) years from the date hereof; and it is further
ORDERED that the SUSPENSION be immediately STAYED subject to the following conditions:
1. Respondent shall be subject to a peer review of his practice by a peer review committee designated by the Board in six (6) month intervals for a period of three (3) years beginning six (6) months from the date of this Order;
2. Respondent shall abide by his Impaired Physicians' Committee contract, a copy of which is attached hereto and incorporated herein as Exhibit A; and
3. Any failure by respondent to comply with this Order will result in an immediate VACATING of the STAY and reinstitution of formal proceeding by the Board.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

Consent

By this Consent, I hereby submit to the entry of the above Findings of Fact and Conclusions of Law and agree to be bound by the foregoing Order and its conditions and restrictions, consisting of six (6) pages.
1. I acknowledge the Board's jurisdiction and the validity of this Order as if made after a hearing at which I would have had the right to counsel, to confront witnesses, to give testimony, to call witnesses on my own behalf, and to all other substantive and procedural protections provided by law. I also recognize that I am waiving my right to appeal any adverse ruling of the Board that I might have following any such hearing. By this consent, I waive all such rights.
2. I understand that if I fail to comply with the conditions enumerated above, then the Board may vacate the stay of the suspension and reinstitute formal proceedings after notice and an opportunity for a hearing.

3. I am entering into this Consent for the purpose of resolving the charges initiated by the Board against my license and neither admit nor deny any Finding of Fact contained in this document.

4. I am represented by E. Lynn Hoffman, Esq. and Arnold G. Foreman, Esq. and I have consulted with them before signing this Order. I sign this Order voluntarily, fully understanding its meaning.

MERRILL BERMAN MD

■ ■ ■

In the Matter of
Albert I. Chalom MD
Before the
Maryland Board of
Physician Quality Assurance

Final Order

This case is before the Board of Physician Quality Assurance (the "Board") as a result of charges brought by the Board against the Respondent, Albert I. Chalom MD, issued January 11, 1989, for Violation of Conditions of the Consent Order of October 6, 1987 (the "Order") issued by the Commission on Medical Discipline (hereinafter "Commission"). The Order provided that Respondent's license was suspended, said suspension stayed subject to the Respondent's complying with certain conditions of probation.

Specifically, the Board charged the Respondent with violation of Condition 6 of the Order, which states as follows:

> That Respondent shall practice fully in accordance with those standards expected of a competent practitioner of medicine in the State of Maryland.

The order provided that Respondent would have an opportunity for a hearing prior to the Commission removing the Stay or imposing a disciplinary sanction. A hearing commenced on February 6, 1989 before a Hearing Officer pursuant to Section 10-201 of the State Government Article.

The Hearing Officer issued a proposed decision on March 6, 1989. Respondent filed exceptions on March 27, 1989. A hearing on the exceptions was held before the Board on June 28, 1989. The following represents the final decision made by a majority vote of the full authorized membership of the Board considering this case.

Summary of Evidence

Attached to the Statement of Charges, and included into the Hearing File as Hearing Officer Exhibits were:

> Hearing Officer Exhibit A - A copy of the Findings of Fact, Conclusions of Law and Order dated October 6, 1987.
> Hearing Officer Exhibit B - A copy of the Mary 20, 1988 report of Dr. Tilley to the Chairman of the Peer Review Committee of the Baltimore City Medical Society.
> Hearing Officer Exhibit C - A copy of the July 27, 1988, report to the Physician Quality Assurance Board from the Baltimore City Medical Society.
> Hearing Officer Exhibit D - A copy of the report to the Board of Physician Quality Assurance from the Baltimore City Medical Society Peer Review Committee, dated December 16, 1988.

At the hearing, the State introduced the following exhibits which were accepted into the hearing record without objection by counsel for the Respondent:

> State Exhibit 1 - A list of patient files examined by the peer reviewers in this case correlated to their alphabet designation in the Statement of Charges.
> State Exhibit 2 - Patient file for Patient B.*
> State Exhibit 3 - Patient file for Patient C.
> State Exhibit 4 - Patient file for Patient J.
> State Exhibit 5 - Patient file for Patient N.
> State Exhibit 6 - Patient file for Patient I.
> State Exhibit 7 - Patient file for Patient A.
> State Exhibit 8 - Patient file for Patient G.
> State Exhibit 9 - Patient file for Patient M.
> State Exhibit 10 - Patient file for Patient L.
> State Exhibit 11 - Patient file for Patient F.
> State Exhibit 12 - Patient file for Patient E.
> State Exhibit 13 - Patient file for Patient H.
> State Exhibit 14 - Patient file for Patient P.
> State Exhibit 15 - Patient file for Patient D.
> State Exhibit 16 - a copy of the report to the Board of Physician Quality Assurance from the Baltimore City Medical Society Peer Review Committee, dated December 16, 1988.

Testifying for the State was David Posner DO, 12 West Chase Street, Baltimore, MD 21201, a Board Certified Family Practitioner, and a Diplomate of the Family Practice Board. Dr. Posner is also a member of the Baltimore City Medical Society Peer Review Committee, who, in addition to reviewing the Respondent's medical practice, has reviewed between 12 and 20 additional medical practices in his capacity as a member of PRC BCMS.

Respondent, represented by counsel, testified under oath on his own behalf, and through his counsel, introduced the following exhibits, which were accepted into the hearing record without objection from the State:

> Respondent Exhibit 1 - An April 19, 1988 memorandum from Peter M. Hartman MD to Edward J. Kowalewski MD regarding Respondent's participation in course of study with the Department of Family medicine at the University of Maryland School of Medicine.
> Respondent Exhibit 2 - The April 26, 1988 letter from Dr. Kowalewski to the Commission regarding the Respondent's participation in training at the University of Maryland School of Medicine.
> Respondent Exhibit 3 - The November 20, 1987, letter from counsel for Respondent to the Commission requesting that the information requiredby the remedial training program be sent to the University of Maryland in order that Respondent be enabled to begin his remedial training.

* The names of the patients have been coded to protect their identity. A list of patients has been filed with the Board.

Respondent Exhibit 4 - The March 21, 1988 letter from Med Chi to counsel for Respondent advising him that the latter's request for peer review of the respondent had been forwarded to the Baltimore City Medical Society.
Respondent Exhibit 5 - A copy of the August 25, 1988 letter from counsel for Respondent to the Board requesting a second peer review of Respondent's medical practice.
Respondent Exhibit 6 - A copy of the September 29, 1988 letter from counsel for Respondent to the Board advising them that the second peer review had not been performed.
Respondent Exhibit 7 - A copy of the November 15, 1988 letter from the Board to counsel for Respondent advising the latter of the Peer Review Committee's recommendations with regard to Respondent's practice of medicine.
Respondent Exhibit 8 - A copy of the June 6, 1988 letter form counsel for Respondent to the Commission requesting that Respondent's right to rescribe controlled dangerous substances be restored.
Respondent Exhibit 9 - A copy of the October 28, 1988 letter from counsel for Respondent to the Board requesting a response to his June 6, 1988 letter to the Commission.
Respondent Exhibit 10 - A copy of the May 20, 1988 report of Lawrence E. Tilley MD, to the Chairman of the Peer Review Committee of the Baltimore City Medical Society regarding the results of the review of Respondent's medical practice.
Respondent Exhibit 11 - A copy of the July 27, 1988 report to the Physician Quality Assurance Board from the Baltimore City Medical Society.

Findings of Fact

Based on a review of the testimony, exhibits, and the exception hearing by clear-and-convincing evidence, the Board finds that:

1. On October 6, 1987, the Commission suspended Respondent from the practice of medicine in the State of Maryland; the suspension was immediately STAYED; Respondent was placed on probation subject to certain terms and conditions as set forth in the Findings of Fact, Conclusions of Law, and Order. (*See* Hearing Officer Exhibit A attached to the Statement of Charges.)

2. Pursuant to the Order, Condition 3 required Respondent to have his practice reviewed quarterly by the appropriate Peer Review Committee of the Medical and Chirurgical Faculty during the period of the Order. (*See* Hearing Officer Exhibit A attached to the Statement of Charges.)

3. On May 13, 1988, the first quarterly review of Respondent's practice was conducted by Drs. Aldo-Pax-Guevara and Lawrence Tilley. (*See* Respondent Exhibit 10 and Hearing Officer Exhibit B attached to the Statement of Charges.)

The peer review substantiated that Respondent had no hospital privileges and that he relied heavily on referrals to Francis Scott Key and Franklin Square Hospitals. Respondent completed a tutorial at the University of Maryland's Family Practice Departdment, attended the core conference in family medicine, and prticipated in CME courses for credit since the date of the Order. Respondent also was unable to prescribe controlled substances as a result of the Order.

The May 13, 1988 review of Respondent's practice by Drs. Paz-Guevera and Tilley, was accomplished through a review of random charts selected by them. At this review. it was noted, "Newer charts show better organization and legibility of material." It was also found that Respondent extensively used medication for diagnoses of depression and anxiety. The review concluded, in part:

> [Respondent's] office practice has improved noticably (sic) but is still sub-standard. Three months of tutorials several hours per week cannot replace years of training in family practice.

Dr. Tilley also emphasized that Respondent needed to maintain a low threshold for referrals in serious, complicated, or unusual cases, and that he should not see children under the age of six (6).

4. On July 27, 1988, the Baltimore City Medical Society reported its findings to the Board. (*See* Respondent Exhibit 11 and Hearing Officer Exhibit C attached to the statement of charges.)

This report gave certain background information, including, in part:

> [Respondent's] remedial training program began on January 6, 1988... Peter M. Hartmann MD, who was [Respondent's] Course Director, wrote... noting that [Respondent's] general fund of medical knowledge was marginal and remained limited. His recommendations were that [Respondent] not see children under the age of six for any condition and that he continue to attend regularly scheduled continuing medical education programs of a least three hours each week....
> Dr. Kowalewski... [concurred] with Dr. Hartmann on [Respondent's] progress... and added that the Peer Review Committee should pay particular attention to [Respondent's} medical records, his dispensing of mood-altering drugs, evidence of continuing education, and his use of controlled substances in general. (State Exhibit 16 page 1)

The report indicated that the second quarterly review, performed on October 26, 1988, was accomplished by review of eighteen patient records which were selected and provided to the reviewers by Respondent (ten pediatric patients, four old patient records, and four new patient records). As a result of the document review by the Peer Reviewers, Respondent was invited to attend the December meeting of the Peer Review Committee to answer questions with regard to the records reviewed. Respondent and his attorney attended the meeting of the Peer Review Committee, and the following conclusions were reached by the Peer Review Committee as a result of the second review procedures, in part:

> From this committee's review, it appears that [Respondent] attempts to give only episodic care to his patients. However, even in providing only limited care, [Respondent's] practice is substandard. He frequently overlooks serious chronic problems or fails to investigate potential problems. He provides no follow-up care for patients even when such is directly indicated by his diagnosis. He does not know the indications, contraindications, or interactions for many of the medications he uses.
> More specifically, there are no adequate histories or physical

examinations in any of the charts.... Although it has been strongly recommended in the past that he not treat children under the age of six, he continues to see young children. Among the records [Respondent] submitted to the Committee were three patients who are six years old or younger.
When questioned about why he continued some patients on medications, his response was that another physician had given the prescription and he continued it.... He consistently fails to perform appropriate tests of examinations to evaluate his patients' conditions and/or progress, and during questioning he seldom seemed to know what tests or exams should be done or what the results would indicate.
While there was some minor improvement in the record keeping before and after he entered the program at the University of Maryland, the changes appear to be superficial at best....While he appears to try to use the SOAP format, he does not seem to understand what examinations should be performed at a given time nor what his objective finding would indicate. (State Exhibit 16 pages 2 and 3)

The recommendations of the Baltimore City Medical Society, as a result of the Peer Reviews conducted, were, in part:

As a result of this review, this committee believes that [Respondent] does not have the fund of medical knowledge which would allow him to practice competently. We believe his practice is far below the minimum standard which would be acceptable in this community and recommend that action be taken promptly to remove him from practice. (State Exhibit 16 page 3)

5. The standard of care practiced by Respondent in his practice of medicine is below that standard acceptable in the State of Maryland, as evidenced by the standard of care rendered to the following patients:

Patient A. The Board has alleged, in part:
Standard practice is for the family doctor to oversee and coordinate care. Respondent did not accept this responsibility apparently expecting the referral physician to manage the patient's complaint. Respondent provided no complete history or physical examination and no discernable treatment plan.

Respondent testified that he referred this 45-year-old patient to four different physicians: a cardiologist, two ophthalmologists, and a urologist. He stated that he received suggestions from the referrals and that he followed the suggestions in his course of treatment of the patient. He testified that HCTZ was prescribed, not for hypertension, but for carpel tunnel syndrome, which he diagnosed by swelling in the patient's hand. The Respondent explained that the patient was receiving Motrin for arthritis, and that he later prescribed Zantac due to the stomach distress she experienced from the Motrin. He added that his plan was for her to eventually stop or decrease the Motrin, but that until this could be accomplished, he treated the stomach distress with Zantac while decreasing the Motrin.

The peer reviewers, after a full discussion of all of the treatment the patient received from the Respondent, concluded, in part:

The patient presented with essentially the same physical findings on March 3 as in January, yet in March she was diagnosed with acute bronchitis. No temperature was taken on any visit to indicate that infection was present, yet an antibiotic was prescribed. There is nothing in the chart to indicate the [Respondent] counselled this patient about her weight (300+lbs) or smoking at any time even though there is a note on the visit of July 28th which indicates that the patient might have nicotine poisoning.
...When questioned further, he did not seem to know how the medications interact.
...standard of practice is for the family doctor to oversee and coordinate her care. [Respondent] does not seem to accept this responsibility for the patients, apparently expecting the referral physician to manage the patient's complaint. He provides no complete history or physical examination and no discernable treatment plan.

Dr. Posner testified that standard of care for this patient required that investigation be done to determine whether the cough with phlegm could be related to congestive heart failure in light of the fact that she suffered from angina. He suggested that a chest X-ray, cardiogram, and a TB test should have been performed. He also testified that the use of Lotrisome for a diagnosis of psoriasis was not within the standard of care. He noted that notwithstanding the complex history of this patient and the profusion of her symptoms, no temperatures were noted in the record, and that the record was also silent as to investigation of the urinary tract symptoms.

The standard of care with regard to this patient was breached in that inadequate investigation was performed to determine the cause of the persistent cough suffered by the patient and, the evaluation of the urinary complaint was inadequate. In addition, temperatures were not noted in the chart where the complaints required such an observation, and the Respondent failed to take adequate charge of this patient's treatment regime, which failure is inappropriate for her primary physician.

Patient B. It was alleged by the Board, in part:
It is substandard to treat a young male for cystitis when presented with the symptoms noted. The patient's complaints during the first visit warranted a much more thorough evaluation, at least a microscopic examination of the urine. Urinary infection is extremely uncommon in a young male. Its presence requires further evaluation of anatomical abnormalities in the urinary system.

Respondent testified, on direct examination, that after treating the twelve-year-old boy for cystitis with Amoxicillin, the patient returned on June 28, 1988, with no continuing urinary tract symptoms. He added that he did not culture the urine of the patient because he "knew" it would culture *E. coli*. He added that he prescribed Amoxicillin on the first visit because the patient complained of both a sore throat and the cystitis symptoms. He stated that Amoxicillin is a broad-spectrum antibiotic that he chose to treat both conditions. Respondent added that on the second visit, he changed the medication because there was no longer a sore throat, and therefore he elected to discon-

tinue the broad spectrum antibiotic in favor of Gantrasin to treat the cystitis.

Respondent, during cross-examination, testified that he did not examine the external genitalia of the patient due to the sensitive nature of such an examination for a twelve-year-old male.

The peer reviewers noted that the patient warranted a much more thorough examination on the first visit prior to initiation of treatment for cystitis. The peer reviewers and Dr. Posner, in his testimony, emphasized that cystitis is quite uncommon in a young male, and that, for this reason alone, a more thorough investigation of the matter was required.

With regard to the care rendered in this case, the standard of care was breached most significantly by failure to perform a more thorough examination of the patient, via both the external genitalia and a urinalysis, and the failure to effectuate a referral to a Urologist.

Patient C. It was alleged by the Board, in part:

> There is nothing in this chart approaching the type of history and physical examination that would be expected for a new patient presenting with diabetes mellitus with urinary frequency....Even if awaiting a record from a previous physician, a more complete physical examination and history should have been performed on the first visit....There is no indication that the patient was given a diabetic diet to follow. Nor does the chart note at the second visit anything about further follow-up, which is certainly substandard for a known diabetic.

Respondent testified that this patient, a diabetic, was under the primary care of another physician who treated the patient for diabetes. He stated that the patient came to him only for episodic care of urinary tract symptoms. Respondent stated that he prescribed Bactrim, initially, as a medication due to its potent effect on urinary tract infections. He stated that he changed the medication after two weeks to Macrodantin on the following bases: urinary tract infections in diabetics require a protracted period of treatment; Bactrim is a potent antibiotic that should be used only for a short term treatment; Macrodantin is a milder cleansing agent that is preferable for longer term use in a diabetic. Respondent testified that he did not palpate the patient's abdomen or examine his external genitalia because the history given by the patient strongly indicated a urinary tract infection, and, therefore, there was no need to proceed with the physical examination of the abdomen or genitalia, notwithstanding the occurrence of prostatitis in men of the patient's age (64 years).

Accepting that this patient uses the services of another physician for primary care, it was determined by the peer reviewers, nonetheless, to be below the standard of care to forego a more complete physical examination and history at the time of the first visit. The patient was a diabetic, and yet there was no indication in Respondent's records of the date of the onset of diabetes, how long the urinary problem has been present, and no indication of any abdominal examination.

Dr. Posner noted that urinary tract infections in diabetics are quite serious and that a culture of the urine should have been performed prior to prescribing antibiotic medication. He added that, certainly, prior to a change in the medication, there should have been a culture and sensitivity done.

The standard of care was breached in the treatment rendered to this patient by failure to obtain a more complete history of this diabetic patient, by failure to note that the patient had a primary physician, by failure to perform a more thorough physical examination, and by failure to culture the urine prior to initiation of treatment.

Patient D. It was alleged by the Board, in part:

> On three occasions, Respondent prescribed Motrin and Zantac when the patient complained of stomach upset. Respondent stated that another doctor prescribed the Motrin and he continued it, but there is no history in the Patient's chart. Respondent did not know that Motrin could be the cause of the stomach distress.
>
> Respondent did not know whether Cardizem, a drug he prescribed for the patient was a beta blocker or channel blocker.
>
> It is substandard not to conduct an initial history and physical of this patient.

This 71-year-old female patient was seen by the Respondent every two to four weeks from June 1988 to October 1988 for various symptoms. She was treated by Respondent for cystitis, bronchitis, depression, hypertension, angina pectoris, stomach spasm, and rheumatoid arthritis. He prescribed various medications for the diagnoses: Macrodantin (for cystitis), Zantac (for stomach distress), Nitro (for angina), clear liquid and BRATT diet (for gastrointestinal symptoms), Adafin (for depression), Cardizem (for hypertension), Amoxicillin (for acute bronchitis, and Lentax (for a recurrence of cystitis), plus other medications. Respondent testified that he assessed the level of the patient's depression through conversations with her in the office and by observation, and that he prescribed Adafin as an antidepressant. Counsel for Respondent referred to the Physician's Desk Reference to support that Adafin is not only an antianxiety medication, but is also an antidepressant.

The peer reviewers found considerable problems with the treatment rendered to the patient by the Respondent in this case. The major areas of concern expressed by them were: the lack of an adequate history and physical examination on a patient with the complex symptoms exhibited by her; and the failure to substantiate diagnoses of congestive heart failure, cystitis, depression, hypertension, and angina pectoris; and the Respondent's apparent lack of understanding of pharmacology. They summed up their concerns, in part:

> Clearly, these are not the actions of a physician who knows the dangers of prescribing multiple medications. [Respondent's] response to the committee's question as to why he prescribed many of the drugs he did was that other physicians had prescribed them and he just continued them,

but there is no indication that he contacted previous physicians. [Respondent] is treating whatever symptoms are presented with no underlying treatment plan and no evaluation of the patient's overall physical health (State Exhibit 16 page 17).

Dr. Posner testified that the Respondent breached the standard of care in his treatment of this patient by his lack of understanding of pharmacology. As examples he cited the use of very potent hypertension drugs in the case where the patient's chart noted only one incident of a blood pressure of 156/90. He added that the danger of quickly lowering a patient's blood pressure is the possibility of causing arrythmia in the patient. Dr. Posner stated that the Respondent's use of the drugs prescribed for hypertension may have had this unfortunate result. He also noted that a patient, whom Respondent had termed to be suffering from congestive heart failure, should have had a proper examination by cardiogram and chest X-Ray on October 3, 1988, when she appeared complaining of shortness of breath, soaking wet from perspiration. He stated that the lack of such investigation of these symptoms is a breach of the standard of care. He added that lack of chest x-ray, lack of cardiogram, and lack of investigation of the patient's complaints regarding difficulty in breathing on July 25, 1988 constituted a breach of the standard of care.

The standard of care for treatment of this patient was breached by the general lack of understanding of pharmacology by the Respondent, and his failure to adequately investigate the cause of the patient's complaints of difficulty in breathing. This patient had varied complaints, and the Respondent's approach to her treatment displayed a lack of understanding of pharmacology, and a lack of underlying treatment plan and lack of evaluation of her overall physical health.

Patient E. It was alleged by the Board, in part:
The terms atopic and fungal are mutually exclusive. Respondent was (sic) unable to explain how he made the diagnosis. Respondent did not perform a set prep exam which is standard practice.

Respondent's file indicates that this 30-year-old female patient presented to him on September 29, 1988 complaining of a rash on her back. The chart has a circular sketch on what is described as the forearm. Respondent described the rash as "ringworm." The chart, however, notes "dermatitis" as the diagnosis, and the prescription issued by Respondent was for Lotrisome. Respondent further described the skin irritation as "Atopic dermatitis (fungal in origin)." No culture was performed prior to diagnosis. The Respondent testified that he knew the skin rash was ringworm, and that he does not know why he wrote "atopic dermatitis (fungal in origin)" on the chart. He stated that he knew the difference between atopic dermatitis and ringworm.

The peer reviewers commented that Respondent did not appear to know the difference between the terms atopic and fungal. They were also critical of Respondent's failure to perform a culture prior to making a diagnosis of the skin rash.

Dr. Posner testified that the standard of care for the treatment of this patient was breached by the failure of the Respondent to differentiate between a fungal infection and dermatitis.

The standard of care for the treatment of this patient was breached by the failure of Respondent to utilize proper diagnostic procedures prior to prescribing medication for the skin rash, and by failure in his ability to differentiate between fungal infections and dermatitis.

Patient F. It was alleged by the Board, in part:
Accepted standards of medical practice dictate that a physician observing a child as feverish, dehydrated, sick, and sleepy should have taken her temperature. This child was seen four times for a sore throat, once with an enlarged tonsil, but no throat culture was obtained. The dermatitis was repeatedly diagnosed as "allergic," however, no consideration seems to have been given to discovering its possible cause. And, despite the presence of this rash, there was no follow-up or correlation with the previously diagnosed ringworm.

This ten-year-old patient was seen nine times by the Respondent in an eleven-month period. On four occasions, the complaints of the patient were related to sore throat or upper respiratory problems. No throat cultures were performed on any of those occasions. On four occasions, the patient was seen for gastrointestinal complaints. On one of these occasions, she was noted by the Respondent to be feverish, dehydrated, sick, and sleepy. On none of these visits did the Respondent perform an abdominal examination, and only once did the chart indicate that the child appeared to be dehydrated. On three occasions the patient was seen for skin rashes or irritations, and she was diagnosed by the Respondent as having allergic dermatitis and ringworm. On several of the visits, Respondent noted in the chart that the patient had a viral infection and prescribed only Rondec. Twice the Respondent prescribed antibiotics for either the cough or the sore throat. Antihistamines and Lotrisome were prescribed for the skin irritations.

The peer reviewers, in their criticism of the treatment rendered to the patient by the Respondent stated, in part:

Accepted standards of medical practice would dictate that a physician observing a child as feverish, dehydrated, sick and sleepy should have taken her temperature. This child was seen four times for a sore throat, once with an enlarged tonsil, but no throat culture was obtained. The dermatitis was repeatedly diagnosed as "allergic," however, no consideration seems to have been given to discovering its possible origin. And, despite the presence of this rash, there was no follow-up or correlation with the previously diagnosed ringworm (State Exhibit 16 page 11).

Dr. Posner testified that the standard of care for treatment of this patient was breached by lack of skin culture or microscopic examination of the skin rash to

determine its proper treatment, lack of throat culture during the course of treatment for a young patient treated four times over a six month period for sore throat, and by failure to note temperature on the chart. He also testified that the failure to perform an abdominal examination or further investigate the level of her dehydration when she presented with severe gastrointestinal symptoms as below the acceptable standard of care.

The standard of care for treatment of this patient was breached by failure to conduct proper diagnostic procedures with regard to the throat and, skin, and abdominal symptoms. The standard of care required that a throat culture be performed, that abdominal examination be performed, that hydration levels be noted, and that the skin rash be cultured prior to prescribing treatment.

Patient G. It was alleged by the Board, in part:
This child was in to see Respondent nine times in nine months for a series of coughs, colds, and flu-like symptoms. She received three courses of antibiotics in a five-month period for fever, sore throat, runny nose and cough without an appropriate culture. Respondent's notes of 1/11/88 indicate that he believes the presence of yellow phlegm means that an antibiotic should be prescribed which is an inappropriate reason to prescribe an antibiotic. This patient has a history of asthma, and Respondent did not know the difference between an asthma attack and bronchitis.

There were no abdominal examinations or hydration notes in the record, even when the child was seen for gastritis symptoms. When treating a patient with an eye irritation, an examination of the ears, nose, and throat is standard practice prior to determining a diagnosis.

Respondent testified that this eleven-year-old child had nine office visits in a period of ten months. She was seen for gastric complaints including vomiting and loose bowels, for eye irritation, and for sore throats, coughing, and running nose. Respondent, at various times prescribed antihistamines and antibiotics for the sore throat and coughing, Neosporin for the conjunctivitis, and Bratt diet for the stomach distress. At no time did he perform an abdominal examination or determine hydration levels in the patient, nor did he ever record a temperature or perform a culture for either the sore throat, cough or the conjunctivitis symptoms.

The peer reviewers stated the standard of care for treatment of this patient was breached by the lack of abdominal exams or hydration levels, the lack of cultures performed prior to courses of treatment with antibiotics, and the lack of a complete ENT examination prior to making a diagnosis of conjunctivitis.

Dr. Posner testified that the standard of care for treatment of this patient was breached in the totality of her treatment by the Respondent. He stated that the lack of abdominal examination and hydration levels for a pediatric patient with vomiting and diarrhea symptoms is not within the standard of care and is a dangerous practice. He added that the lack of recordation of temperatures in instances where the Respondent made a diagnosis of bronchial asthma and the lack of cultures when he prescribed antibiotics for treatment was not within the standard of care. Dr. Posner also opined that the frequent diagnosis of rhinitis should have resulted in a referral to an ENT specialist or allergist.

The standard of care was breached in the treatment of this patient by Respondent's failure to use proper diagnostic procedures prior to prescribing treatment with antibiotics, by failure to refer the patient to an ENT specialist after repeated visits for "rhinitis" and by failure to perform abdominal examinations and note hydration levels in a pediatric patient suffering from acute gastric distress.

Patient H. It was alleged by the Board, in part:
It is standard practice to measure red blood count when a patient complains of pain and blood loss for six weeks duration.

Respondent saw this patient for pain and bleeding during bowel movements. She was pregnant at the time of the visit, and she stated that she had been experiencing the symptoms for about six weeks. She stated that the pain and bleeding were severe, and that she would be left shaking from the symptoms. Respondent performed a pelvic examination, diagnosed internal hemorrhoids and prescribed Anusol HC.

The peer reviewers criticized the treatment rendered to the patient by the Respondent for his failure to measure her red blood count in view of her six-week history of blood loss and pain.

Dr. Posner testified that the standard of care for treatment of this patient was breached by Respondent's failure to measure the red blood count of the patient. He also stated that Respondent's diagnosis of internal hemorrhoids is inconsistent with the symptoms described in the chart. He stated that internal hemorrhoids are not enervated, and are therefore painless, and that external hemorrhoids are painful when they are enlarged. He also stated that an examination of the liver and spleen should have been done along with a blood count to determine whether the bleeding might be from somewhere else in the intestinal tract other than the rectum.

The standard of care for the treatment of this patient was breached by the failure of the Respondent to measure the read blood count and by his failure to more fully investigate the possible origin of the bleeding in this patient. It is also below the standard of care to diagnose internal hemorrhoids in a patient whose symptoms include pain during the bowel movement.

Patient I. It was alleged by the Board, in part:
He presented with the same symptoms almost monthly and was repeatedly diagnosed as having bronchitis or rhinitis and was treated with antibiotics. However, no cultures were taken, temperatures were recorded on only two for the ten visits, and only one ENT examination was conducted. No

history was obtained to rule out the possibility of asthma or an allergy problem.

This four-year-old patient was seen by Respondent nine times between May 28, 1987 and October 24, 1988. At virtually all of his visits to Respondent, the symptoms complained of were cough, congestion, and sneezing. Although the diagnoses recorded in the charts varied from rhinitis to bronchitis, there was no evidence or testimony that a throat culture was ever performed. There was also no referral to an allergist although the records indicate that the child did not run fevers and, for a period of more than 15 months, continued having symptoms compatible with allergy.

The peer reviewers commented that this child was treated with various antibiotics without the benefit of any cultures being performed. It was also noted that temperatures were recorded on only two of the visits, and no history was included in the charts which would rule out the possibility of asthma or allergy. The peer reviewers made a point of noting that Respondent "did not appear to realize that he should have investigated this possibility."

Dr. Posner testified that the standard of care for this patient required that at least one throat culture be performed and that a referral should have been made to an allergist. He stated that the history of URI such as that presented by this patient required a throat culture at some point during the treatment.

The standard of care is breached in the treatment of this patient by the lack of referral to an allergist and by lack of performing any throat cultures when the record indicates the use of various antibiotics.

Patient J. It was alleged by the Board, in part:
When hypertension was diagnosed on 7/28/88, the patient had a blood pressure of 146/90. Over almost all of his visits (on 1/7, 2/5, 4/14, 5/9, 6/10, 8/22, 10/13, and 10/27), his weight and blood pressure were relatively the same as on 7/28/88. Why Respondent suddenly diagnosed hypertension is not clear, nor is it clear how he intended to treat the patient for hypertension.

Respondent testified that his patient, on the discovery of blood in his urine and diagnosis of painless hematuria, was referred for cystoscopy. He stated that on subsequent visits by this patient, he referred the patient to Dr. Breschi at Franklin Square Hospital, and that, eventually, a cystoscopy was performed. Respondent testified that the patient reported to him that he suffered from frequent urination in the night, and that this was the basis for the diagnosis of prostate enlargement. Respondent stated that he did not want to examine the patient's prostate due to the sensitive nature of such an examination, and that frequent nocturnal urination is generally caused by enlarged prostate in men of the age of the patient (73 years). He added that on the basis of the history, there was no need to perform an abdominal examination.

The peer reviewers noted the lack of a history for this patient who suffered from diabetes and bronchial asthma. They noted concern for the lack of an aggressive investigation on the first visit of the urological complaints by the diabetic patient. It was also noted with concern that an apparent diagnosis was made, on July 28, 1988, of hypertension, when the patient's blood pressure had been fairly consistent for the prior 18 months. The peer reviewers noted that the record is silent as to any serious attempt to address the patient's diabetic condition notwithstanding comments by the patient referring to "cheating" on his diet noted in the record. With regard to the patient's lung condition, asthma was noted in the record on July 28, 1988, but no mention of this condition was made again until the patient complained of shortness of breath on October 13, 1988.

Dr. Posner testified that the standard of care in a diabetic of this age requires that an abdominal examination be conducted to determine if there were a urinary obstruction. He added that a digital examination of the prostate would be required to make a diagnosis of prostate enlargement. Dr. Posner added that the lack of inclusion of a history of asthma in the first visit record is below the standard of care, and that laboratory blood work should have been done prior to prescribing medication for hypertension. Dr. Posner emphasized that the standard of care for a patient such as this requires that a glycolate hemoglobin and fasting blood sugar test be done.

The standard of care was not met with regard to treatment for this patient due to the lack of a complete history of the diabetes, lack of adequate physical examination for diagnosing the patient's problems, lack of adequate laboratory testing prior to administration of medications, and the lack of documentation or support for the diagnosis and treatment of hypertension in the patient.

Patient L. It was alleged by the Board, in part:
It is substandard eare to attempt to evaluate a patient presenting with gastrointestinal complaints without performing an abdominal examination or to check hydration. It is also substandard to fail to take and record temperatures and to make a diagnosis of upper respiratory infection without performing an ENT examination.

Respondent testified that he performed an ENT examination of this ten-year-old patient when she presented with fever and flu symptoms. He directed attention to the Chart for February 8, 1988, wherein he drew a picture of the enlarged tonsils and noted "but no erythema." He added that he did not feel that the child was very sick, and therefore he did not feel it was necessary to measure her hydration level. He also did not perform an abdominal examination although the patient presented with loose bowels, stomachache, and vomiting. He prescribed Erythromycin at this visit. Respondent also testified that he prescribed Ampicillin for the patient on September 9, 1988, as a precautionary measure to prevent infection after removal of stitches. Respondent stated when this patient would

present with gastrointestinal symptoms, he would pinch the skin on her hand to determine the dehydration level, and that he never noted a hydration problem in this child.

The peer reviewers commented that it was substandard care to attempt to evaluate the patient's gastrointestinal complaints without performing an abdominal examination and without noting the patient's hydration level. They also stated that it was substandard to fail to record the patient's temperature when making a diagnosis of upper respiratory infection. The peer reviewers commented that the standard of care in the diagnosis of allergic reaction made for the skin rash symptoms on September 9, 1988, required follow-up to determine the cause of the allergic reaction.

Dr. Posner testified that the standard of care for the treatment of this patient was breached by failure to perform an abdominal examination and note hydration levels when the patient presented with gastrointestinal complaints. He added that failure to note the temperature of the patient was also a breach of the standard of care.

The standard of care for the treatment of this patient was breached by Respondent's failure to perform an abdominal examination and failure to note her hydration levels.

Patient M. It was alleged by the Board, in part:
It is substandard to attempt to diagnose gastrointestinal problems without the benefit of an abdominal examination. It is also inappropriate to try and treat such problems without investigating the patient's hydration. It is also inappropriate to diagnose ringworm without testing.

This eleven-year-old patient was seen by Respondent of two occasions for symptoms of vomiting and loose bowels and upper respiratory symptoms, and twice for rashes on the leg. Respondent, on a visit when the patient appeared for elevated temperature, vomiting and loose bowels, prescribed Ampicillin for acute bronchitis. At that time her performed no abdominal examination and did not note hydration levels in the chart. On the occasion when the patient complained of a rash on the leg, Respondent, without performing a culture of the rash, diagnosed ringworm, contact dermatitis, and infectious dermatitis, and her prescribed Lotrisome. When the patient returned one week later again complaining of the leg rash, which had spread, Respondent, again without the benefit of a culture, diagnosed contact dermatitis and infectious dermatitis and prescribed Amoxicillin. He testified that the ringworm had been scratched by the patient and, in order to prevent infection of the area, he prescribed the antibiotic on the second visit.

The peer reviewers observed that it was substandard to make a diagnosis of gastrointestinal problems without the benefit of an abdominal examination, to treat abdominal symptoms without investigating the child's hydration level, and to make a diagnosis of ringworm without performing a culture.

Dr. Posner testified that the standard of care was breached throughout the course of treatment of this patient by failure to perform an abdominal examination of this patient or note the hydration level of the patient, and to diagnose ringworm without the benefit of a culture. He added that to diagnose ringworm and dermatitis is outside the standard of care. He explained that ringworm and dermatitis would not coexist, and that the former would not, in the period of one week, develop into the latter. He stated that although a change in diagnosis does not amount to a breach of the standard of care, the breach occurs due to the lack of the documentation regarding the diagnosis itself. He illustrated his point by noting that Respondent's records lack any indication of abdominal examinations, levels of hydration, or cultures performed.

The standard of care was breached in the treatment of this patient by the lack of adequate abdominal examination and lack of notation of hydration level. The standard of care with regard to the diagnosis and treatment of the skin rash on the patient's leg also was breached due to the lack of a culture performed prior to making a diagnosis, and due to the lack of documentation of the contradictory diagnoses of ringworm and dermatitis with regard to the same symptoms.

Patient N. It was alleged by the Board, in part:
A temperature of 98.4° is not a fever which would indicate the need for an antibiotic. There is no basis for a diagnosis of bronchitis on 5/10/88 when the record states that the chest was clear. This child was seen a total of four times for a sore throat, but no throat culture was done which would be a routine standard of care in treating this type of patient.

Respondent testified that this six-year-old boy, who was treated on four occasions for symptoms including sore throat, coughing and running nose, did not require a throat culture at any time. He stated that the child's mother would bring the child to the office "whenever he sneezed," and that he was sure that the illness was viral. He stated that there was no evidence of erythema or exudate noted in any of the visits, and that this would indicate that a negative culture would result. The Respondent added that on the third visit, when the chart noted that the child had a temperature of 98.4°, he did prescribe an antibiotic because he believed that there was a bacterial infection present, but he admitted that he did not perform a culture to determine the type of bacteria present.

The peer reviewers determined that a temperature of 98.4° and finding of a "clear chest" are indicative of neither a diagnosis of bronchitis nor the need for an antibiotic. They noted their concern that this child was seen four times for a sore throat in a seven-month period, and yet there was no throat culture performed.

Dr. Posner testified that the standard of care for a child presenting to a physician with the symptoms noted in the chart would require the notation of a

temperature in the chart, and a throat culture prior to prescription for antibiotics.

The standard of care was breached in the treatment of this patient by the lack of noting temperatures in the chart of a patient who presents with the symptoms indicated in this record and by the lack of a throat culture prior to the administration of an antibiotic. The standard of care is also found to have been breached as there appears to be no documentation, nor was there any testimony by Respondent, to support the diagnosis of bronchitis on May 10, 1988.

Patient P. It was alleged by the Board, in part:

No pelvic or breast examinations were made on this patient during any of the visits, nor was a mammography ever suggested, as would be standard for this type of patient. When asked why estrogen therapy was given without progesterone, Respondent had no explanation. Respondent was not aware of the potential risk to the patient of administering estrogen without progesterone, nor was he aware that he should examine the patient for the possibility of breast or pelvic cancer. Respondent also was not aware that treatment of osteoporosis with estrogen is presently considered ineffective if not administered within the first seven years post menopause. There is no notation in the chart to indicate the date of the onset of menopause. This is unacceptable treatment of this patient for any physician, but particularly for a gynecologist.

From August, 1987 through November, 1988, this patient was treated by Respondent for "osteoporosis and menopausal syndrome." Respondent prescribed Premarin and a calcium supplement for the patient. During the term of treatment, the chart notes that the patient had a continuing complaint regarding neck pain for which she took Advil, and that she was hospitalized in September 1988 for a five-day period as a result of a fall. The record does not indicate that any pelvic examinations were conducted, nor any mammogram, nor any diagnostic procedures that would have led to the original diagnosis of osteoporosis. Also, there was no prescription for progesterone to use in opposition to the Premarin therapy.

The peer reviewers criticized the lack of any evidence in the chart that would indicate the basis of the initial diagnosis of osteoporosis in August 1987. They indicated that January 1988 is the first mention of scoliosis, and that it was in March 1988 that the chart indicated that the curvature of the spine was severe. The peer reviewers were extremely critical of the patient's treatment with Premarin without any pelvic or breast examination or any mammography. They expressed great concern that the patient was treated with estrogen therapy without administering progesterone, and that the Respondent did not appear to realize the danger of such therapy. They also expressed concern that Respondent did not seem to be aware that the patient should have been examined for the possibility of breast or pelvic cancer during her treatment with estrogen. They also noted that the onset of menopause is not noted in the chart, and that estrogen therapy for osteoporosis has been found to be ineffective unless begun within seven years of the onset of menopause. They were extremely critical of this patient's treatment due to the fact that the Respondent's prior training was in the field of gynecology.

The peer reviewers also noted that it was substandard treatment for the Respondent to limit his approach to the high cholesterol level of the patient by merely counseling her to limit the number of eggs eaten per week, eliminate butter, and to eat more fish. They noted that the record should have included follow-up studies of the cholesterol levels in the patient's blood. There was also criticism of the lack of any effort made to obtain the records from the hospital in which the patient was hospitalized in September 1988.

Dr. Posner testified that the standard of care for the treatment of this patient was breached by the lack of breast examination, mammography, pelvic examination, and administration of progesterone to a patient diagnosed with osteoporosis and treated with estrogen. He stated that periodic examinations of the pelvis and breasts, including periodic mammography are required when estrogen therapy is administered. He added that it is not within the standard of care to use unopposed estrogen therapy. He stated that the standard of care is to cycle progesterone with estrogen therapy. Dr. Posner added that the lack of history as to the onset of menopause is also below the standard of care in the treatment of a patient diagnosed with osteoporosis.

The standard of care in the treatment of this patient is breached due to the improper use of estrogen therapy for this patient: lack of periodic pelvic and breast examination, lack of periodic mammography, lack of sufficient history information in the chart noting onset of menopause and number of pregnancies or children, and the use of unopposed estrogen therapy in the treatment of osteoporosis.

6. The cases reviewed were selected for review by the Respondent, and, after, review by two peer reviewers, the Baltimore City Medical Society Peer Review Committee, and Dr. Posner, there was not one patient whose overall care was within the acceptable standard in the community.

Board's Response to Respondent's Exceptions Respondent did not except to any particular finding of fact made by the Hearing Officer or to any conclusion of law. Therefore, the Board will address Respondent's exceptions in general, which is compatible with the manner in which Respondent made same.

Respondent's Exception #1

THAT the Hearing Officer failed to consider fully the fact that all the other demands set forth in the Consent Order entered into by and between Respondent and the Commission on Medical Discipline on October 6, 1987, were fully complied with by Respondent.

Board's Response to Respondent's Exception #1 It is irrelevant, as to the particular charged violation, that Respondent complied with the other conditions of probation. Respondent's compliance with conditions of probation 1 through 5 was not an issue. Indeed, the most important condition of probation was the

provision with which Respondent was charged. The Board rejects this exception.

Respondent's Exception #2

THAT the Hearing Officer failed to consider the fact that said compliance was at the behest and insistence of Respondent, as evidenced by Respondent's Exhibits 3, 4, 5, and 6.

Board's Response to Respondent's Exception #2 The Board incorporates its response to Respondent's exception #1. Again, the issue is whether Respondent complied with condition 6 of the Order.

Respondent's Exception #3

THAT the Hearing Officer failed to give sufficient weight to the fact that only through improvement, over time, would it be possible for Respondent to comply with Condition 6 of the Consent Order which mandates as follows: That Respondent shall practice full in accordance with those standards expected of a competent practitioner of medicine in the State of Maryland.

Board's Response to Respondent's Exception #3 The Findings of Fact indicate that Respondent was given ample time to improve his practice to be in accordance with those standards expected of a competent practitioner in Maryland. The stay of Respondent's license was effective October 6, 1987. Subsequent peer reviews were conducted after Respondent had remedial training. These reviews indicated that Respondent's practice was substandard and his care of patients evidenced incompetence. Respondent was given one bite of the apple in the Order of October 6, 1987. Respondent does not deserve another. The Board rejects this exception.

Respondent's Exception #4

THAT the Hearing Officer failed to give proper consideration to the fact that a three (3) year probationary period was prescribed in the Consent Order in order to afford Respondent the requisite time to improve his practice.

Board's Response to Respondent's Exception #4 There is nothing in the October 6, 1987 Order to justify Respondent's bold assertion. The Respondent freely entered into this Order, a Consent Order. Respondent's counsel negotiated a resolution of the charges against Respondent, which insured to Respondent's benefit. Respondent was allowed to continue to practice and given an opportunity to comply with the applicable standards for the practice of medicine in Maryland. Even after the first peer review, which indicated that the remedial training had not improved Respondent's competence, Respondent was given the benefit of another review before the full Committee. Respondent's attorney opened a door for Respondent. Respondent has closed that door himself. The Board rejects this exception.

Respondent's Exception #5

THAT the Hearing Officer failed to consider fully the fact that the quality of Respondent's practice of medicine had improved significantly after his period of remedial training, as evidenced by Respondent's Exhibits 1, 2, and 10.

Board's Response to Respondent's Exception #5 The Hearing Officer weighed the evidence presented by Respondent against the evidence presented by the State and found facts to indicate that Respondent was not in compliance with the standards of practice of medicine in Maryland. Respondent's improvement was not at issue. Respondent's competence and compliance with the standards of practice in Maryland was at issue. The Board rejects this exception.

Respondent's Exception #6

THAT the Hearing Officer's recommendation that Respondent's license to practice medicine be revoked is incompatible with the Hearing Officer's own recommendation that Respondent should be encouraged to "obtain sufficient medical education and training to enable him once again be considered for licensing by the Board."

Board's Response to Respondent's Exception #6 The Board's present Order takes into account this exception. Respondent is given an opportunity to obtain sufficient medical education and training.

Respondent's Exception #7

THAT the Hearing Officer failed to give any consideration whatsoever to the State's own witness, Dr. David Posner, testimony that Respondent, through his practice, had not caused any patient to die, had not caused any harm to any patient, and had helped patients.

Board's Response to Respondent's Exception #7 The fact that there is no evidence that Respondent had not caused any patient to die, had not caused any harm to any patient, and had helped patients is not relevant to the charge against Respondent. The Board is mystified why Respondent believes that such as argument has merit. Such an argument leads to the absurd conclusion that the Board should wait until there is a damaging result from incompetent practice. The Board's mandate is to prevent harm, not to wait until it occurs.

Respondent's Exception #8

THAT the Hearing Officer failed to give any weight whatsoever to the intimidating circumstances of the second peer review of Respondent's practice in interpreting the results of that review, even though the State's witness volunteered, on his own, that the circumstances of that review were intimidating and unfair.

Board's Response to Respondent's Exception #8 At the hearing before the Hearing Officer, the State's expert witness testified as to the care given by Respondent to 14 patients. These patients charts were introduced. Respondent had ample opportunity to cross-examine the State's expert and to present expert testimony of his own. The Hearing Officer's findings that respondent was practicing substandard medicine was supported by this testimony. Regardless of what occurred at the full Committee review, Respondent had an opportunity to testify in an atmosphere that was not intimidating or unfair. The Board bases its decision the evidence introduced before the Hearing Officer and places great weight in the testimony of the State's expert. The Board rejects this exception.

Respondent's Exception #9

THAT a number of the Hearing Officer's conclusions with regard to the quality of Respondent's practice with regard to the care rendered particular patients were based on faulty interpretation of the State's witness' testimony with regard to medical facts.

Board's Response to Respondent's Exception #9 The Board is unable to respond to this unspecific exception does not set forth any details or transcript references.

Therefore, the Board rejects this exception noting that the State's expert testified as to the care rendered to each patient and explained carefully how Respondent had breached the standard of care.

Respondent's Exception #10

THAT the Hearing Officer failed to consider Respondent's twenty one (21) years of dedicated service to the people of Maryland, particularly the poor or near poor.

Board's Response to Respondent's Exception #10 The Hearing Officer's charge was to determine whether the charge against Respondent is correct. This exception has no bearing on whether Respondent violated the terms of probation of the October 1987 Order. Rather, this exception addresses the sanction that should be imposed. By giving Respondent an opportunity to be retrained and to reapply to the Board after any retraining, the Board has taken into account this exception. The Board further notes that attempting to make "the poor" or "near poor" a separate class and therefore medical treatment of this class deserving of special consideration insidious.

Respondent's Exception #11

THAT the Hearing Officer failed to consider less onerous alternatives than revocation of Respondent's license as viable means of protecting the public interest.

Board's Response to Respondent's Exception #11 There is clearly no way to protect the public from Respondent's substandard practice of medicine except to remove him from the practice. Respondent cannot be supervised every minute or left on his own. The testimony indicates Respondent does not practice competently in accordance with the standards expected of a competent practitioner of medicine in the State of Maryland. This exception is rejected.

Conclusion of Law

Based on the foregoing Findings of Fact, the Board concludes as a matter of law that:

The Respondent violated Condition 6 of his probation as provided in the Order of October 6, 1987, wherein he was required to "practice fully in accordance with those standards expected of a competent practitioner of medicine in the State of Maryland."

Order

Based on the foregoing Findings of Fact and Conclusions of Law, pursuant to Health Occupations Article, it is this 23rd day of October 1989

ORDERED that the stay on the suspension of Respondent's license imposed under the Consent Order of October 6, 1987 be LIFTED; and be it further

ORDERED that Respondent's license is SUSPENDED until such time as Respondent:

1. Successfully completes a retraining program approved *a priori* by the Board;
2. Demonstrates to the Board that Respondent is competent to practice medicine as an obstetrician/gynecologist; and
3. Agrees to comply with any reasonable condition or limitation placed on Respondent's practice in order to protect the public health, safety, or welfare in the event the Board decides to stay the suspension of Respondent's license or reinstatement of his license; and be it further

ORDERED that this is a final order.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

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In the Matter of
Samuel W. Chang MD
Before the
Maryland Board of
Physician Quality Assurance

Modification of Findings of Fact
Conclusions of Law, and Order

In light of an Agreement in the above-captioned matter executed this day between the Board of Physician Quality Assurance (the "Board") by its Chairman, Israel H. Weiner MD, and Samuel W. Chang MD, who is represented by able counsel, entitled "Agreement to Modify Final Order In Lieu of Appeal," which Agreement is attached to and referenced herein, the Board hereby MODIFIES the Findings of Fact, Conclusions of Law, and Order issued on or about June 21, 1988 by the former Commission on Medical Discipline, to which this Board is the successor agency, so that at page 8, beginning on the third typewritten line, the language shown in brackets below shall be deleted, and the language underlined below shall be inserted:

ORDERED that the license or Respondent, Samuel W. Chang MD, an individual licensed to practice medicine in the State of Maryland, is hereby SUSPENDED for a period of five (5) years from June 21, 1988, which shall be deemed the date of this Order, and be it further

ORDERED that the board will entertain a Motion to Stay any part of the final thirty-nine (39) months of the foregoing license suspension provided that during the six-month period following the execution and service of this Modification, during which Respondent's license to practice medicine shall be completely suspended, that Respondent presents adequate proof of successful compliance with the following conditions:

In all other respects, the forementioned Findings of Fact, Conclusions of Law and Order, together with the conditions therein, shall remain unchanged and will this date be given full effect, except as modified herein.

It is so ordered.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

Agreement To Modify Final Order in Lieu of Appeal

The undersigned parties, being (1) the Board of Physician Quality Assurance (the "Board") by its Chairman, Israel H. Weiner MD, and (2) Samuel W. Chang MD, who is represented by able counsel, Alexander Stark, Esquire, hereby agree as follows:

1. The Board shall modify its proposed order dated June 21, 1988, which was affirmed by the Board's Memorandum Decision, following exceptions, of May 24, 1989, to state that the five-year term of the Order will have commenced on June 21, 1988, but that the Board will not entertain a Motion to Stay the remainder of the Order until six months from the date of this Agreement. The Board will execute this day a Modification of the Findings of Fact, Conclusions of Law and Order in *In re Samuel Chang MD*, which effectuates its obligations under this Agreement. A copy of the Modification is attached hereto and is incorporated by reference as if set forth herein. By executing this Agreement, both parties agree to the terms of the Modification.

2. Samuel W. Chang MD, in consideration of the Board's execution of this Agreement and the attached Modification, agrees not to file any appeal from the board's final order, as affirmed and modified. Dr. Chang further agrees not to file any claim, demand, or other cause of action of any kind whatsoever against the Board, the former Commission on Medical Discipline, the State of Maryland or any of its agencies or Departments, or any agent or individual employed by or serving on any of the foregoing entities, arising out of the aforesaid Board Order, as affirmed and modified, or the facts and circumstances that gave rise to the Order.

The parties affirm that this Agreement, and the attached Modification, is the final and entire agreement between them concerning the disposition of the subject disciplinary proceeding.

SAMUEL W. CHANG MD

ALEXANDER STARK, Esquire
Counsel to Dr. Chang

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

HARRY J. MATZ
Counsel to the Board

In Re: Samuel Chang MD Before the Maryland Commission on Medical Discipline

Findings of Fact, Conclusions of Law, and Order

Based on information coming to its attention, the Commission on Medical Discipline of Maryland (the "Commission") conducted an investigation and subsequently determined to charge Samuel Chang MD ("Respondent") with violation of the Maryland Medical Practice Act (the "Act"), Md. Health Occupations Article, §14-101 et seq. code Ann. Specifically, the Commission charged Respondent with violating Health-Occupations Article, §14-504(6) and §14-504(22). Pursuant tot he latter charge, subsidiary violations of §14-504(3), (12), and (25) were also alleged. Specifically, the Commission charged that:

> Subject to the hearing provisions of Section 14-505 of the Maryland Medical Practice Act, ... the Commission on Medical Discipline ... on an affirmative vote of a majority of its full authorized membership may reprimand any licensee, place any licensee on probation, or suspend or revoke a license if a licensee:
>
> Is ... convicted ... by a court of any state or country ... for an act that would be grounds for disciplinary action under this section. §14-504(22). Grounds under this section would be:
>
> Is guilty of immoral conduct in the practice of medicine; §14-504(3)
>
> Willfully makes or files a false report or record in the practice of medicine; §14-504(12)
>
> Willfully submits false statements to collect fees for which services are not provided; §14-504(25)
>
> Is convicted of or pleads guilty or nolo contendere with respect to a crime involving moral turpitude, whether or not any appeal or other proceeding is pending to have the conviction or plea set aside; §14-504(6).

Respondent was notified of the charges by letter dated December 1, 1987.

A prehearing conference was scheduled and conducted on January 14, 1988 during the course of which Respondent was represented by his counsel, Alexander Stark, Esquire, who also represented Respondent during the course of the criminal proceedings concluded prior to the initiation of the present action.

On February 25, 1988, a hearing was conducted in accordance with the Medical Practice Act and the Administrative Procedure Act. Commissioner Ronald Taylor MD conducted this evidentiary hearing in accordance with the provisions of COMAR 10.31.01.04.

Prior to the hearing, the administrative prosecutor filed a motion *in limine* seeking an order precluding Respondent from introducing into evidence any testimony and/or documents that would negate or explain his Medicaid fraud guilty plea. Respondent filed a response in opposition to this motion. This matter was discussed preliminarily during the February 25,

1988 evidentiary hearing. After hearing argument with respect to this motion, the Hearing Officer deferred making any ruling with respect to the motion at the initiation of the hearing.

Findings of Fact

In accordance with the provisions of Md. State Government Code Ann. §10-212, the Commission has reviewed the evidentiary record in this proceeding including all transcripts, exhibits, motions, and other documentary evidence. On the basis of the entire record and its collective experience, technical competence, and specialized knowledge in the practice of medicine, the Commission finds:

1. That the factual matters set forth in the foregoing section entitled "Procedural History" are found by the Commission as facts and are hereby incorporated into these Findings of Fact as if fully set forth herein.

2. That Respondent is a physician licensed and practicing in Maryland both currently and at all time material to the allegations relating to this matter.

3. That Respondent has maintained a private practice of medicine in Poolsville, Maryland since at least 1980.

4. That Respondent graduated from medical school in Korea in 1959. He subsequently completed an internship with the United States Army. Subsequently, he completed additional training in general surgery at Howard University and Rogers Memorial Hospital.

5. That on October 28, 1987, Respondent pled guilty pursuant to Maryland Rule 4-243 to a Criminal Information filed in the criminal proceeding captioned *State of Maryland v. Samuel W. Chang*, Circuit Court of Baltimore City, Criminal No. 28730125. Respondent pled guilty to one count of violating Article 27, §230C and §230D(a). Because the value of the money, services or goods involved in this criminal proceeding exceeded $500, this Medicaid fraud conviction constituted a felony pursuant to Article 27, §230D(a).

6. The charges to which Respondent pled guilty were based on his submitting fraudulent invoices and obtaining reimbursement from the Maryland Medical Assistance Program ("Medicaid"). In support of the plea agreement, the State of Maryland submitted a Statement of Facts indicating that in October of 1986 the Medicaid Fraud control Unit of the Office of the Attorney General initiated an investigation of Respondent based on suspicious billing patterns. Utilizing a Medical Assistance Program computer analysis, it was determined that Respondent's billing for office visits per patient, diagnostic lab procedures per patient, and laboratory procedures per patient greatly exceeded the average of physicians with similar medical practices. The Grand Jury of Baltimore City issued a subpoena duces tecum to Respondent on December 22, 1986 seeking patient charts and records for 41 named patients. After obtaining several extensions and filing an unsuccessful motion to quash the subpoena, Respondent surrendered these patient charts and files to the Grand Jury. State investigators were able to determine that several patient charts had been altered in response to the subpoena by comparing the records submitted to photocopies of charts previously submitted by Respondent to the Medical Assistance Program. In addition, the State's investigation established that Respondent altered and fabricated results from independent laboratories, whose services were utilized for patient diagnosis. In addition, interviews of Respondent's patients revealed that a majority of patients interviewed had not been seen by Respondent for symptoms indicated on his patient charts. The Statement of Facts further noted that Respondent submitted Medicaid billings for "extended" office visits that did not correspond to the statements of patients interviewed by the Office of the Attorney General. This fraudulent office billing practice resulted in Respondent overcharging the State for office visits in the amount of $6,056. The Statement of Facts further disclosed that Respondent did not perform diagnostic laboratory procedures in accordance with the billing submitted to the Medicaid Program. Laboratory records submitted by Respondent to the Grand Jury were compared to records independently maintained by the diagnostic laboratory. A comparison of these documents revealed that alterations and fabrications were made by Respondent. The State concluded in its Statement of Facts that Respondent fraudulently billed Medicaid $6,457.65 for laboratory services he never performed. The total payments obtained by Respondent through these fraudulent billing practices totaled $12,513.65. In accordance with Md. Health-General Article, code Ann., §15-123(b), the State sought treble damages in the amount of $37,540.95. The plea agreement jointly submitted by the State and Respondent in the criminal proceeding contains a recommendation by the State that the Respondent be sentenced to two months incarceration. Respondent sought a sentence of probation before judgment. The parties further agreed that Respondent would be sentenced to make restitution to the State of Maryland in the amount of $37,540.95, which was to be repaid by Respondent during a five-year period of unsupervised probation.

The State waived its right to prosecute Respondent for a charge of Obstruction of Justice resulting from his actions occurring during the course of the criminal investigation.

7. As a result of the plea agreement, State's Exhibit No. 4, the Statement of Facts, State's Exhibit No. 5, and the representations made by the State and Respondent during the sentencing hearing on October 28, 1987, State's Exhibit No. 7, Respondent was found guilty of the charges set forth above. The Circuit Court for Baltimore City imposed a judgment of 60 days suspended incarceration, five years of unsupervised probation and restitution in the amount of $37,540.95. Respondent subsequently filed a petition for modifica-

tion or reduction of sentence, which was denied by the Court except to the extent that restitution was reduced by the amount of $72.75 resulting in a final restitution award of $37,468.20. State's Exhibit No. 6.

8. During the course of the evidentiary hearing conducted by Commissioner Ronald Taylor on February 25, 1988, Respondent presented several letters of recommendation and the testimony of two patients in addition to testifying on his own behalf. During the course of this testimony, it was evident to Commissioner Taylor that Respondent had an inadequate command of the English language. The transcript of these proceedings further illustrates the nature of these inadequacies, which are of such a nature so as to raise serious questions as to Respondent's ability to effectively communicate with his patients and otherwise to perform such written and oral tasks as are necessary to practice medicine competently.

Conclusions of Law

Based on the foregoing Findings of Fact, the Commission on Medical Discipline, by the unanimous vote of a quorum of its members, concludes as a matter of law that Respondent violated §14-504(6) and §14-504(22) of the Maryland Medical Practice Act, Health-Occupations Article, Annotated Code of Maryland, and finds Respondent GUILTY of those charges. In making the findings with respect to §14-504(22), the Commission has determined that the Findings of Fact clearly contain ample grounds for sustaining the ancillary charges of §14-504(3), (12) and (25) so as to thereby sustain the broader charge of Respondent's violating §14-504(22).

Order

Based on the foregoing Findings of Fact and Conclusions of Law, it is this 21st day of June 1988, by the unanimous vote of a quorum of the members of the Commission on Medical Discipline,

ORDERED that the license of Respondent, Samuel Chang MD, and individual licensed to practice medicine in the State of Maryland, is hereby SUSPENDED for a period of five (5) years from the date of the execution of this Order; and be it further

ORDERED that the Commission will entertain a Motion to Stay the final fifty-four (54) months of the foregoing license suspension provided that during the six-month period during which Respondent's license to practice medicine is suspended, that Respondent presents adequate proof of successful compliance with the following conditions:

1. That Respondent shall continue to meet any conditions imposed by the Circuit Court for Baltimore City in the disposition of the criminal matters that form the subject of this prosecution;

2. That Respondent shall complete 200 hours of community service during the course of the six-month license suspension. The 200 hours of community service shall be completed at a place which the Commission approves. Respondent shall submit a reasonable proposal for Commission approval within 60 days of this Order. The entity or entities with which Respondent completes his community service shall supervise the service and report to the Commission when service is completed;

3. That during the course of the license suspension period, Respondent shall enroll in, at his own expense, and shall present evidence acceptable to the Commission indicating that he has successfully completed a course enhancing his competence in the English language to a degree that he can effectively communicate with patients and perform such written and oral tasks as are necessary to practice medicine competently. Respondent shall obtain the approval of the Commission or its successor agency, prior to enrolling or commencing the English language course. Respondent shall submit a reasonable proposal for Commission approval within 60 days of this Order; and be it further

ORDERED that Respondent shall not engage in activities of the type that led to his criminal conviction; and be it further

ORDERED that Respondent shall not violate any other provisions of the Act; and be it further

ORDERED that Respondent shall practice fully in accordance with those standards expected of a competent practitioner of medicine in the State of Maryland and shall otherwise comply with all requirements of the Act; and be it further

ORDERED that after the expiration of five (5) years from the date of this Order, the Commission, or its successor agency, will entertain a petition for termination of this Order and will consider a request that Respondent's license be restored to practice medicine without conditional restriction, upon Respondent's demonstrating to the satisfaction of the Commission that he has complied with the terms and conditions of this Order. If the Commission determines that he has not complied with the terms and conditions of this Order, the Commission may modify one or more of the conditions set forth in this Order; and be it further

ORDERED that if Respondent violates any of the foregoing terms of this Order, the stay on the license suspension may be lifted and the Commission, after notification, hearing, and determination of violation, may impose any additional disciplinary sanctions it deems appropriate.

HILARY T. O'HERLIHY MD, Chairman
Maryland Commission on Medical Discipline

■ ■ ■

In the Matter of
Paul Daniel Miller DO
Before the
Maryland Board of
Physician Quality Assurance

Final Order
Findings of Fact,
Conclusions of Law, and Order

Certain information having come to the attention of the Board of Physician Quality Assurance of Maryland (the "Board"), pursuant to the Medical Practice Act, Health Occupations Article, Annotated Code of Maryland, ("HO") §14-504, voted to charge Paul Daniel Miller DO ("Respondent") with

> Is guilty of immoral conduct in the practice of medicine.§14-504(a)(3) HO and
> Fails to meet appropriate standards as determined by appropriate peer review for the delivery of quality medical and surgical care performed in an outpatient surgical facility, office, hospital, or any other location in this State. §14-504(a)(22) HO

Notice of the charge and the allegations supporting the charge were given to Respondent by letter dated July 5, 1989. The Board also voted to summarily suspend Respondent's license pursuant to §10-405, State Government Article, Annotated Code of Maryland. However, the Respondent agreed to voluntary surrender his license under §14-503 HO pending the resolution of the outstanding charges against him. The issuance of the summary suspension was stated. A hearing was scheduled before the Office of Administrative Hearings and Appeals on August 7 and 8, 1989. Due to the Respondent's agreement to stipulate to the factual allegations in the charging document, to plea guilty to the charge of §14-504(a)(3) and plea no contest to the charge of §14-504(a)(22), the hearing before the Office of Hearings and Administrative Appeals was cancelled. A hearing before the Board on disposition of the case was held on Wednesday, July 26, 1989. Board members who were not present subsequently read the entire hearing transcript. Board members who had not been present for the entire hearing read the transcribed portion of the hearing for which they had been absent. At the Board meeting on Wednesday, September 27, 1989, all Board members were present and voted on the proposed findings of facts, conclusions of law, and sanction in this case. Respondent and the State were given notice of the proposed decision and an opportunity to file exceptions and make argument to the Board on October 11, 1989. Respondent filed exceptions on October 10, 1989. The State filed no exceptions.

Respondent and the State argued before the Board on Wednesday, October 11, 1989.

On July 26, 1989, the State, through its attorney, Debra G. Woodruff, Assistant Attorney General, Administrative Prosecutor, presented the following evidence:

Stipulation as to the Charges

Testimony from Larry Beck, President of Garrett County Memorial Hospital.

A summary of the discharges by physicians with privileges at Garrett County Memorial Hospital, Fiscal Year 1988-1989.

A hand-written summary of Deliveries in Garrett County Memorial Hospital for calendar year 1988.

The Respondent, through his attorney, Robert E. Watson, Esquire, presented the following evidence:

Testimony from Peter Martin Hartmann MD, a Board certified Family Practitioner, and Board eligible psychiatrist from University of Maryland School of Medicine.

Karl Schwalm MD, a partner of Respondent.

Robert A. Goralski MD, a partner of Respondent.

Cheryl Miller, Respondent's wife.

Paul Daniel Miller MD, Respondent.

After considering all evidence, exceptions and argument, by a majority vote of the full authorized members, the Board makes the following decision:

Findings of Fact

By clear and convincing evidence the Board finds that:

1. On or about February 2, 1981, Respondent was licensed to practice medicine in the State of Maryland. (Stipulation)
2. Respondent was licensed to practice medicine in Maryland until July 5, 1989, when he surrendered his license to practice medicine in Maryland and other jurisdictions.
3. From approximately 1982 until July 5, 1989, Respondent practiced family medicine in Oakland, Garrett County, Maryland.
4. As part of Respondent's practice, Respondent practiced gynecology, obstetrics, and counselled patients.
5. Respondent delivered 89 babies in the calendar year 1988 at Garrett County Memorial Hospital.
6. During the fiscal year 1988-1989, Respondent admitted and cared for 550 patients in Garrett County Memorial Hospital.
7. Since Respondent started practicing in Garrett County, Respondent has provided free medical services to the Garrett County High School football team and Garrett County Crossroads.
8. Respondent had the largest practice in Garrett County and was available to his patients at all hours except when he was on vacation. Respondent often saw patients at home.
9. Sometime in 1982, Patient A sought care from Respondent. At the conclusion of each visit, Respondent kissed Patient A on the cheek. Sometime in 1983, at the conclusion of the visit, Respondent kissed

Patient A on the lips. Patient A never returned for care by Respondent.* (Stipulation)

10. In September 1983, Patient A's sister, Patient B sought care from Respondent. At the conclusion of the visit, Respondent asked Patient B when she was going to see her sister. Respondent told Patient B: "Give her this for me," and Respondent "kissed" Patient B. (Stipulation)

11. In September 1983, Patient C was treated by Respondent in the Emergency Room. After Respondent completed the procedure, the nurse left the examining room and Respondent kissed Patient C on the lips. Respondent called Patient C at home and told her that he loved her. Respondent told Patient C to have an affair if she was having marital problems. (Stipulation)

12. On May 28, 1989, Patient D sought care from Respondent. Respondent prescribed Imipramine and suggested counseling. Respondent said that he could provide counseling to Patient D. Patient D met Respondent and after several minutes discussing Patient D's problems, Respondent removed patient D's clothing and attempted to have sex with Patient D. Respondent told Patient D that she should have an affair. (Stipulation)

13. Sometime in 1986, Patient E sought care from Respondent. Respondent called Patient E at home and told her that he dreamed about her. After Patient E confided that she was having marital problems, Respondent suggested that Patient E have an affair. In February 1987, Patient E went to Respondent's office after regular hours and Respondent removed Patient E's blouse and fondled her breasts. Respondent and Patient E kissed for approximately one hour. Respondent explained that his wife did not understand him. One week later, Respondent and Patient E engaged in sex and continued to have sex for approximately 14 months. (Stipulation)

14. Respondent disclosed to the Board that he had sexual relations with five (5) other patients. Tr. pages 139 - 140.

15. In the summer of 1988, Respondent learned that he was being investigated as a result of a complaint filed regarding his sexual behavior with one of his patients. (Tr. 143 - Exception 1)

16. Respondent sought counseling and entered treatment with Dr. Hartmann in January 1989. (Tr. 40 - Exception 2)

17. Respondent has seen Dr. Hartmann for individual therapy and marital counseling since January 1989. (Tr. 55 - Exception 3)

18. Dr. Hartmann was one of Respondent's professors in medical school and knew that Respondent was chief resident in family practice. Dr. Hartmann's opinion was that Respondent was considered a competent physician.

19. Counseling is part of the curriculum in the Family Practice Residency at University of Maryland School of Medicine.

20. The opinion of Respondent's treating psychiatrist is that Respondent's behavior was not a result of a psychiatric illness but resulted from his failure to have normal psychosexual development and his failure to observe boundary lines.

21. The opinion of Respondent's treating psychiatrist is that Respondent has made progress in dealing with the factors that led to his having sexual relations with his patients, and did not deny the inappropriateness and harm caused by his actions.

22. The opinion of Respondent's treating psychiatrist is that it is highly unlikely that Respondent will engage in sexual relations with patients again because Respondent is not denying his actions, Respondent has insight into his problems, and Respondent will be returning to a small town where his actions will be closely monitored.

23. Respondent's partners, Dr. Schwalm and Goralski, are willing to have Respondent return to practice.

24. Respondent's partners, Drs. Schwalm and Goralski expressed the willingness of their other partners to have Respondent return to practice.

25. Dr. Goralski's opinion is that Respondent's patients were extremely loyal to him and would return to him, even knowing of his behavior.

26. Respondent's wife believes that since Respondent had entered therapy, his behavior had changed.

27. Respondent's wife does not believe Respondent will engage in sexual or exploitative relations with patients again.

28. Respondent knows that his behavior was wrong, against professional standards, and harmed his patients.

29. The testimony of Drs. Hartmann, Schwalm, and Goralski and Respondent's wife was credible and trustworthy.

30. The testimony of Respondent was credible insofar as the Board believes that Respondent recognizes the immorality of his conduct, the breach of medical standards by his conduct, and the potential harm to his patients caused by his conduct.

31. The relationship between a family practitioner and his/her patients is one of trust in which the patient is dependent, vulnerable, and relies upon the physician.

32. The relationship between an obstetrician and his/her patients is one of trust in which the patient is dependent, vulnerable, and relies upon the physician for accurate advice and counsel.

33. The relationship between a physician counselor is one of trust in which the patient is dependent, vulnerable, and relies upon the physician for accurate advice and counsel. The patient can be easily exploited and all caution should be exercised not exploit this trust.

34. There is no valid medical treatment that involves sexual contact between a patient and a treating family

* The Board's records contain the names of the patients. However, to protect patient confidentiality, the names of the patients are

practitioner, obstetrician, or counselor during the course of medical treatment.

35. There is no valid medical treatment that involves suggesting a patient have an affair to resolve marital problems.

36. Sexual contact with a patient by a family practitioner, obstetrician, or counselor is exploitative and can harm the patient.

37. Respondent's behavior towards Patients A, B, C, D, and E reflects numerous breaches of medical ethics, and violations of professional standards governing the appropriate practice of family practitioners and similarly situated Maryland practitioners.

38. Respondent violated the trust and dependency placed in him by Patients A, B, C, D, and E.

39. A standard for delivery of quality surgical and medical care in Maryland is to NOT engage in sexual relations with patients.

40. A standard for delivery of quality surgical and medical care in Maryland is to NOT to suggest extramarital affairs to resolve marital problems.

41. As a medical review committee, as defined in §14-601 HO, and as the regulatory Board governing the practice of medicine in Maryland, the Board is an appropriate peer review body to determine whether a licensee has failed to meet appropriate standards for the delivery of quality medical and surgical care in Maryland.

Conclusions of Law

Based on the foregoing Findings of Fact, by a majority of the full authorized membership of the Board considering this case, there is clear and convincing evidence for the Board to determine that as a matter of law that Respondent committed the following acts:

Is guilty of immoral conduct in the practice of medicine. §14-504(a)(3) HO and
Fails to meet appropriate standards as determined by appropriate peer review for the delivery of quality medical and surgical care performed in an outpatient surgical facility, office, hospital, or any other location in this State. §14-504(a)(22)

Order

Upon the foregoing Findings of Fact and Conclusions of Law, it is this 16th day of October 1989, by a majority of the full authorized membership of the Board considering this case

ORDERED that Respondent's license to practice medicine in Maryland be REVOKED; and be it further

ORDERED that after June 1, 1990, Respondent may file a Petition for Reinstatement of Respondent's License conditioned upon Respondent submitting evidence of the following:

1. That Respondent IMMEDIATELY entered into intensive psychotherapy with Dr. Hartmann or a psychiatrist approved by the Board.

2. That Respondent IMMEDIATELY signed a release allowing the Board to forward to Respondent's therapist a copy of Respondent's testimony.

3. That Respondent is following the psychiatrist's recommendations and continuing in therapy until such time that the therapist certifies to the Board in writing that the Respondent should be discharged, and the Board approves of the cessation of therapy.

4. That Respondent IMMEDIATELY sign a release in order to allow his therapist to file monthly progress reports with the Board, including a summary of his treatment until October 1, 1989 and a report thereafter monthly, and to permit the therapist to report to the Board if Respondent misses an appointment without cause and/or is not following the therapist's recommendations.

5. That Respondent's therapist agreed in writing to file progress reports with the Board to indicate the number and type of appointments Respondent had with the therapist (including missed appointments) and to inform the Board if Respondent terminates therapy prior to approved termination.

6. That on or about May 1, 1990 Respondent submit to an evaluation by a psychiatrist selected by the Board. The evaluation by the psychiatrist will include not only an evaluation of Respondent but a review of the case against Respondent, the record at the hearing, the progress reports of the therapist, and a consultation with Respondent's treating psychiatrist.

7. That the evaluation by the Board's selected psychiatrist is satisfactory and indicated that Respondent can return to the practice of medicine without posing a danger to his patients.

8. That Respondent shall start and successfully complete an ethics course in medical ethics approved by the Board; and

9. That there are no outstanding complaints from patients regarding sexual conduct after January 1, 1989; and be it further

ORDERED that Respondent will bear any costs involved in complying with the Order except the cost of the evaluation by the Board selected psychiatrist; and be it further

ORDERED that Respondent will bear the burden of proving by clear-and-convincing evidence that his license to practice medicine should be reinstated; and be it further

ORDERED that in the event that Respondent's petition for reinstatement of his license to practice medicine in the State of Maryland is granted, the Board may impose whatever conditions the Board thinks necessary to protect public safety, health and welfare; and be it further

ORDERED that in no event will Respondent's Petition for Reinstatement be granted prior to July 5, 1990.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

In the Matter of
Taju-Deen Ohiokephai MD
Before the
Maryland Board of
Physician Quality Assurance

Final Order

On April 27, 1987, the Commission on Medical Discipline, the predecessor agency of the Board of Physician Quality Assurance (the "Board") voted to charge Taju-Deen Ohiokephai MD (the "Respondent") pursuant to Health Occupations Article ("HO") §14-504(1)* and HO §14-504(12).†

The case was referred to the Administrative Prosecutor to draft the charges. The Administrative Prosecutor drafted a charging document charging Respondent under §14-504(a)(1) and (2) forwarded same to the Board for ratification. However, prior to the Board's voting to issue the charging document, the charging document was executed and served on Respondent.

Subsequently, a settlement conference was held and a proposed Consent Order forwarded to the Board. Upon review of the Consent Order, it became apparent that the Board had not voted on the charges.

Therefore, the Board reviewed this case at its meeting on Wednesday, September 13, 1989. The Board voted there was cause to charge Respondent with HO §14-504(a)(11). The Board also agreed to accept the terms of the Consent Order previously executed by Respondent with the charges altered. Counsel for Respondent had previously agreed to waive notification under the Administrative Procedure Act of the new charge provided the terms of the Consent Order remained the same. Therefore, the Board enters into the following Consent Order.

Findings of Fact

1. At all times relevant to these charges, Respondent was and is licensed to practice medicine in Maryland.

2. On July 1, 1982, Respondent began a first year residency program in internal medicine at Prince George's General Hospital ("PGGH"). In his application for residency at PGGH, Respondent indicated that this place of birth was Washington, DC. This statement was false.

3. On March 8, 1983, Respondent applied for a license to practice medicine in Maryland. Respondent checked "U.S.A." to indicate his citizenship upon entering medical school. This statement was false.

4. On November 3, 1983, the Board of Medical Examiners of Maryland issued Respondent License No. D30115.

5. On June 11, 1985, PGGH notified the Board of Medical Examiners that Respondent did not accurately complete his original application for employment at PGGH. Respondent indicated that he was born in Washington, DC. and was a citizen of the United States. PGGH stated that "it now appears that this information is not true and [Respondent] is not a United States citizen, nor does it appear that he has a valid visa at this time."

6. On November 17, 1986, Respondent applied for courtesy privileges at Liberty Medical Center. In his application for employment, Respondent indicated that he was born in Lagos, Nigeria. In his curriculum vitae, Respondent falsely listed his alien number as A21-661-951. Alien number A21-661-951 belongs to Respondent's brother, Rahman Ohiokephai.

7. On February 3, 1988, Respondent applied for approval of relative immigrant visa petition with the United States Department of Justice Immigration and Naturalization Service ("INS"). On June 24, 1988, INS approved Respondent's petition and assigned Respondent file number A28-925-732.

Respondent is classified by INS as B2 visitor who is not authorized to work in the United States.

8. Respondent is currently working at Liberty Medical Center.

9. The practice of medicine includes the application for privileges or the filling out of an employment application to practice medicine.

10. The practice of medicine includes making an application for a license to practice medicine.

Conclusions of Law

Based upon the Findings of Fact, the Board concludes as a matter of law that Respondent "willfully makes or files a false report or record in the practice of medicine;" (HO §14-504(a)(11))

Order

Based on the foregoing Findings of Fact and Conclusions of Law, it is this 23rd day of October 1989, retroactive to August 21, 1987,

ORDERED that Respondent's license to practice medicine in the State of Maryland is SUSPENDED; and that the suspension shall be for a period of sixty (60) days beginning on August 21, 1989; and be it further

ORDERED that Respondent shall surrender his license to practice medicine, his Controlled Dangerous Substances Registration Certificate, and his United States Drug Enforcement Administration Registra-

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* HO §14-504(1) states:
Fraudulently or deceptively obtains or attempts to obtain a licensee for the applicant or licensee.
HO §14-504(1) was recodified to §14-504(a)(1) effective July 1, 1989 without substantive change.

†HO §14-504(12) states:
Willfully makes or files a false report or record in the practice of medicine.
HO §14-504(12) was recodified to §14-504(a)(11) effective July 1, 1989 without substantive change.

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tion Certificate to the Board at 4201 Patterson Ave., Baltimore, MD 21215; and be it further

ORDERED that Respondent will provide to the Board the necessary work authorization from INS on or about October 21, 1989, or thereafter.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

Consent

By this Consent, I hereby accept and agree to be bound by the foregoing Order and its conditions and restrictions, consisting of 6 pages.

1. By signing this Consent, I hereby submit to this Order and its conditions. I acknowledge the Board's jurisdiction and the validity of this Order as if made after a hearing at which I would have had the right to counsel, to confront witnesses, to give testimony, to call witnesses on my own behalf, and to all other substantive and procedural protections provided by law. I also recognize that I am waiving my right to appeal any adverse ruling of the Board that might have followed any such hearing. By this consent, I waive all such rights.
2. I understand that if I fail to comply with the conditions enumerated above, I may suffer disciplinary action against my license to practice medicine in the State of Maryland.
3. I am represented by Reginald A. Hawkins-Abdulah Salim, Esquire, and have consulted with him before signing this Order. I sign this Order voluntarily, fully understanding its meaning.

TAJU-DEEN I. OHIOKEPHAI MD ■

We invite your comments as well as scientific articles.
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confidential\, kän-fə-ˈden-chəl\ adj(1759) 1: marked by intimacy or willingness to confide. 2: PRIVATE, SECRET.

nondisciplinary\ nän-ˈdis-ə-plə-ner-ē\ adj(1598) 1a: not of or relating to discipline. b: not designed to correct or PUNISH breaches of discipline.

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Sun., Jan. 14, 3 p.m. at MHS, 201 W. Monument, Baltimore — ***How Do I Start—From Garage Sale to Sotheby's*** by MHS Chief Curator Jennifer F. Goldsborough.

Sun., Jan. 21, 3 p.m. at MHS, 201 W. Monument, Baltimore — ***Woven for Every Occasion—Quilts, Coverlets, Needlework and Rugs*** by MHS Associate Curator Rosemary Gately and Oriental rug expert Gerald W. Thompson.

Sun., Jan. 28, 3 p.m. at MHS, 201 W. Monument, Baltimore — ***Little Things Mean A Lot—Basics of Buying Silver, Ceramics, and Glass*** by Jennifer F. Goldsborough.

Sun., Feb. 4, 3 p.m. at MHS, 201 W. Monument, Baltimore — ***How Do You Know It's Old—The Nuts and Bolts of Furniture and Paintings*** by MHS Curator Gregory Weidman

Thurs., Feb. 8, 5:30–9 p.m. at Balto. Convention Ctr. — ***Preview Party***—unparalleled opportunity to see and buy *before* the general public. $75 per person includes cocktails, hors d'oeuvres, music and Fri., Sat. & Sun. show admission and catalog.

Fri., Feb. 9, 10:30 a.m. at Balto. Convention Ctr. — ***Walk with the Experts***—guided tour of the show with MHS curators. $15 per person includes same-day show admission and catalog. (Free to pre-show seminar package purchasers.)

SHOW EVENTS

Mid-Winter Night Dreams—two seldom offered opportunities to share food and drink with intimate friends amidst the glorious surroundings of two noted preservationist/collectors.

Fri., Feb. 9, 8 p.m. Antrim, 30 Trevanion Rd., Taneytown, Carroll County — ***Dinner with Dorothy and Richard Mollett,*** owners of Antrim, a graciously restored plantation house built in 1844 by Colonel Andrew E. Ege, after his birthplace, County Antrim, Ireland. For their meticulous restoration, the Molletts received several awards, among them the *Mid-Atlantic Country Magazine* Heritage Award for historic preservation of an inn. $75 per person includes one-day show admission and catalog.

Sat., Feb. 10, 6–8 p.m. Halcyon Farm, Lutherville — ***Cocktails with Stiles Tuttle Colwill,*** joint owner of Colwill and McGehee Antique Decorative and Fine Arts and former MHS Chief Curator, on his elegant Greenspring Valley estate. $50 per person includes one-day show admission and catalog.

Sat., Feb. 10, 11 a.m. Balto. Convention Ctr. — ***Baubles, Bangles & Baltimore Belles***—panel discussion on the current collecting rage of antique and costume jewelry with Mish Tworkowski, jewelry designer and Sotheby's Assistant Vice President. Accompanied by special exhibit from MHS collection, *baubles* from some of Baltimore's most famous belles including the Duchess of Windsor and Betsy Bonaparte. $25 per person includes same-day show admission and catalog.

Sun., Feb. 11, 11:30 a.m. MHS, 201 W. Monument, Baltimore — ***"What Mad Pursuit": The Pleasures & Perils of Book Collecting*** with Dr. Richard Macksey, Professor of Comparative Literature, The Johns Hopkins University. $15 per person includes coffee and danish, catalog and same-day show admission and catalog.

Special discount for groups of 20 or more. Call (301) 685-3750 ext. 321 or 322 for more information.

MISCELLANEOUS MEETINGS

January 22-24 — **NIH Consensus Development Conference: Noise and Hearing Loss**, Masur Auditorium, Warren Grant Magnuson Clinical Center, NIH, Bethesda. Info: D. Rice 301-468-6555.

January 27 — **The Killing of Children: Can the Carnage Be Stopped?** Eleventh Annual Interdisciplinary Conference on Children and Adolescents, 9 a.m. - 12:30 p.m., Education Center, The Sheppard & Enoch Pratt Hospital, 6501 N. Charles St., Towson, MD 21204. Sponsored by the Maryland Interdisciplinary Council for Children & Adolescents. Fee: $15, full-time students, interns, resdients, & trainees $5; 3.25 AMA Cat I credits, 3 CEU Cat A for Maryland psychologists. Make checks payable to MIC-CA and mail to O.M. Taube MD, Program Chairperson, MIC-CA, PO Box 23, Stevenson, MD 21153.

March 19-21 — **NIH Consensus Development Conference: Surgery for Epilepsy**, Masur Auditorium, Warren Grant Magnuson Clinical Center, NIH, Bethesda. Info: Conference Registrar 301-468-MEET.

May 2-4 — **Cardiovascular Health Styles: Energizing for the 90s.** The Seventh Regions II and III Cardiovascular Risk Reduction Conference, Hershey Hotel, Philadelphia, PA. Info: D. Fedder DrPH 301-328-7613, FAX 301-328-7184; R. Ranberg 717-787-7073.

May 2-5 — **American Trauma Society Seventeenth Annual Meeting**, Holiday Inn Crowne Plaza, Washington, DC. Info: Meeting Coordinator American Trauma Society, 1400 Mercantile Lane - Ste 188, Landover, MD 20785 (800-556-7890 or 301-925-8811).

Shady Grove Adventist Hospital, 9901 Medical Center Drive, Rockville, MD. Info: 301-279-6000.

January 4 — **Coronary Prone Behaviors: Risk & Modification**
January 11 — **Child Abuse and Neglect: Recognition & Reporting Laws**
January 18 — **Accessing the National Library of Medicine with Your PC**
January 25 — **Anesthesia Safety: The Impossible Dream**
February 1 — **Common Adult Foot Disorders in Orthopedic Practices**
February 8 — **Clinical Implications of the Hepatitis C Assay**
February 15 — **Legal Issues in Medical Practice Today**
February 2 — **Estrogen Replacement Therapy & Controversy**

For AIDS Drug Information

Call 1-800-TRIALS-A

NIAID has established a toll-free number for quick access to current information on NIH-sponsored clinical trials for AIDs. One goal of the service is to enroll more blacks, Hispanics, and IVDAs in clinical trials. All calls and information are confidential. Mailed information will be sent in plain envelopes; the caller's name/address will be deleted from the system. Three trained health specialists [one Spanish-speaking] will answer calls Monday-Friday from 9 am to 7 pm EST.

THE JOHNS HOPKINS MEDICAL INSTITUTIONS

All courses at the Turner Auditorium unless otherwise indicated. Sponsored Continued Education Activities for 1990. Info: Office of Continuing Education, 720 Rutland Ave., Turner Auditorium, Baltimore, MD 21205 (301-955-5880).

January 4-6

Endoscopic Sinus Surgery, Tilghman Rm., Thomas B. Turner Bldg. Fee and credits: $950 lab & lecture course, 3 days, 25 credits; $295 lecture & video course, 2 days, 17.5 credits. Info: J. Ryan 301-955-2959.

January 22-26

17th Annual Geriatric Symposium: A Board Review, Stouffer Harborplace Hotel, Baltimore. Fee: $465 before November 10, $540 thereafter; 33.5 AMA Cat I credits, AAFP prescribed hours.

March 19-21

Spectrum of Developmental Disabilities XII: Prematurity: Neurodevelopmental assessment and Intervention Issues. Fee: $395; 20 AMA Cat I credits. Info: J. Nutt 301-955-2959.

March 22-23

Symposium on Dysphagia III: Basic Concepts of Swallowing and Swallowing Disorders. Fee: $350 physicians, $175 residents and allied health professionals; AMA Cat I and other appropriate credits pending. Info: J. Ryan 301-955-2959.

April 2-7

Seventeenth Annual Pediatric Trends. Fee: $550 physicians, $400 residents and fellows; 45 AMA Cat I and 45 PREP credits.l Info: F. Boling 301-955-2959.

June 4-15

Third Summer Institute in Environmental Health Studies. Subjects include Risk Assessment & Risk Management, Toxicology, Physiology, Occupational Health, Industrial Hygiene, Radiation Health Science, and Risk Communication. Academic or CEU credit. Info: J. Corn 301-955-2609.

Continuously Throughout the Year

Ophthalmic Electrophysiology Technician Training Course (on-going 1-week course by appointment). The Wilmer Eye Institute, Baltimore. Info: C. Kearney.

The Department of Radiology and Radiological Sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams 301-955-3169.

Visiting Physicians - offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. Fee: $500; 40 AMA Cat I credits.

Johns Hopkins Medical Grand Rounds - Accredited audiovisual continuing education series of case discussion for clinicians; 30 topics/year in 5 bimonthly programs. Individual and group subscriptions; 40 AMA Cat I credits. Info: 301-955-3988.

Microsurgery Training at The Johns Hopkins Hospital, one week, offered continuously throughout the year. 40 AMA Cat I credits. Info: P. Williams 301-955-3169.

31st Postgraduate Institute for Pathologists in Clinical Cytopathology for Board Certified (or qualified) pathologists as a subspecialty residency. 152 AMA Cat I credits in two courses, **both of which must be taken**.

February-April Home Study Course A, personal reading and microscopic study at own lab in preparation for Course B.

April 23-May 4 In-residence Course B, lecture series, laboratory, and clinical experience at The Johns Hopkins Medical Institutions, Baltimore.

Course A materials will be sent each participant within the US and Canada for home study. Participants *outside* the US and Canada must make arrangements to study Course A before Course B. *The entire course is given in English.*

Application and preregistration advised ASAP; preregistration must be completed **before March 23, 1990** unless by special arrangement. Info: J. Frost MD, 111 Pathology Bldg., The Johns Hopkins Hospital, Baltimore, MD 21205 USA (301-955-8594).

UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE

CME Courses: For each course additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (301-328-3956) or by calling the phone number listed under a specific program.

January 25 — **Dean's Conference #4: Common Psychiatric Problems**, UMAB Campus, Baltimore. Fee: $35; 5.5 AMA & AAFP credits. **Feb 23 Dean's Conference #5: Advances in Clinical Therapeutics**, UMAB Campus, Baltimore. Fee: $35; 5.5 AMA and AAFP credits.

February 23 — **Dean's Conference #5: Advances in Clinical Therapeutics**, UMAB Campus, Baltimore. Fee: $35; 5.5 AMA & AAFP credits.

February 24 — **Neurology and Music at Maryland - Session II**, Reports on epilepsy, pain and recurring disorders, and multiple sclerosis, AIDS, and other neurologic infections. A day of medical education, an evening of entertainment by the Baltimore Symphony Orchestra. Info: Dept. Neurology, UMD, 22 S. Greene St., Baltimore, MD 21201 (301-328-6484).

March 9-10 — **Third Symposium on Urologic Cancer**, Harbor Court Hotel, Baltimore. Fee: $175; 11 AMA Cat I credits.

March 18-20 — **Twelfth National Trauma Symposium: Cross Roads in Trauma Care...Paving the Way to the 21st Century**, Baltimore Convention Center. Info: K. Unitas or T. Young 301-328-2399 or FAX 301-328-8514.

March 22 — **Dean's Conference #6: New Approaches in the Care of the Elderly**, UMAB Campus, Baltimore. Fee: $35; 5.5 AMA & AAFP credits.

April 26 — **Dean's Conference #7: Advances in Endocrinology**, UMAB Campus, Baltimore. Fee: $35; 5.5 AMA & AAFP credits.

June 14-17 — **Third Annual Trauma Anesthesia and Critical Care Symposium**. Pre-symposium workshops on ATLS, ACLS, ABLS, APLS, and CRNAs also will be held. Info: MIEMSS Office of International Development, 11 S. Paca St., Ste 303, Baltimore, MD 21201 (301-328-2399).

Continuously Throughout the Year

Visiting Professor Program - Directory of speakers and topics available for area hospitals and other health care organizations. No administrative fee. Info: 301-328-3956.

Visiting Practitioner Preceptorships - Opportunity for physicians to participate in clinical situations in the University of Maryland Medical Systems. Requires approval from clinical department/division heads. Hour-for-hour Cat I credits available. Direct **all** inquiries to CME 301-328-3956.

Departmental Rounds and Conferences - Weekly, hands-on and lecture presentation hosted by the University's clinical departments. Hour-for-hour AMA Cat I credits available. Brochure available. ■

Medicolegal Hotline for Any Emergency

January	Minda Ancheta-Catoc MD	301-530-2566
	Cathy C. Church Esq.	800-544-6756
February	Rudiger Breitenecker MD	301-828-2252
	Raymond Eugene Dibiagio Esq	301-760-0616

PRIMARY CARE INTERNISTS/TEACHERS

Chesapeake Physicians, PA, the faculty practice group at the Francis Scott Key Medical Center is recruiting internists dedicated to the practice & teaching of General Internal Medicine. Positions available at our community based GIM practices; 32 office hrs/wk can be flexibly scheduled & reduced to pursue approved academic interests. Calls shared among 8 internists. Opportunities for supervising residents on inpatient services & during ambulatory training, for participation in our Faculty Development Program, for Johns Hopkins faculty appointment, & for pursuing interests in geriatrics, substance abuse, or clinical preventive services. Excellent flexible benefit program includes college tuition benefit and 4 wks vacation. Contact Dr. David Kern or Dr. Randy Barker, Div. General Internal Medicine, Francis Scott Key Medical Ctr, 4940 Eastern Ave., Baltimore, MD 21224 (301-550-0509).

HAGERSTOWN, MARYLAND

Three BC pediatricians seeking BC/BE pediatrician or pediatrician/internist to expand primary care office-based practice with inpatient care, nursery through adolescence. Practice in growing suburban area of 100,000 in Piedmont area of Western Maryland. Unique opportunity in modern facility with excellent salary and fringe benefits. Openings available now & summer 1990. Contact Michael A. Nemir MD, 319 E. Antietam St., Hagerstown, MD 21740 (301-790-3620).

P/T OB/GYN POSITION

Supplement income and increase practice. OBG house officer with new hospital OB service in Laurel, MD. Includes base salary, bill-for-service, use of on-site exam room with colpo, cryo, EFM. BC/BE. Contact Mr. Papperman 301-497-7978.

FAMILY PRACTITIONER WANTED

Two full-time positions available in busy 9-physician group in Howard County-Columbia area. BE/BC with Maryland license required. Outstanding opportunity to provide full range of primary care services in new, large, modern facility in one of the more desirable suburbs in US. If you enjoy clinical practice, practice development, and team problem solving, with an opportunity for excellent income, including bonuses, pension and profit sharing, as well as potential ownership, contact our Medical Director for interview. Complete fringe benefit package includes malpractice insurance. Primary Care Specialists, B. Harvey Minchew MD, Medical Director, 2850 N. Ridge Rd., Ellicott City, MD 21043 (301-461-9990).

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Well-established, successful, independent fee-for-service group based in a modern suburban community hospital seeks career-oriented emergency physicians. Excellent compensation. Health, vacation, CME benefits, and bonus incentives. Flexible schedule and rapid advancement. Long-term relationship desired. Close to Annapolis and ocean communities. Board prepared in EM or related field. Available immediately. CV to W.L. Scheetz MD, Director Emergency Medicine Dept., North Arundel Hospital, 301 Hospital Dr., Glen Burnie, MD 21601 (301-787-4571/4572).

BUSY TIMONIUM MEDICAL OFFICE

Seeking Internist or Family Practicioner to private contract approximately 25 hrs. per week. For information call 301-252-1300.

FAMILY PRACTICE FOR SALE

FP/IM Bethesda/ Rockville area; well-equiped office with x-ray. Established over 30 years. Retiring. Terms negotiable. P.O. Box 12116, Silver Spring, MD 20906.

PHYSICIAN WANTED

Semi-retired/retired OK for nice office practice. Part-time. 301-547-2676.

FAMILY PHYSICIAN - SOUTHERN MARYLAND

Excellent practice opportunity for BC/FP to expand services of well-established ambulatory care facility to include Family Practice. High patient volume through practice ensures success. Full or part-time. Contact Stephen E. Wiggins MD, Director, Convenient Health Care, 2000 St. Thomas Dr., Ste.5, Waldorf, MD 20602 (301-843-3888).

INTERNIST/FAMILY PRACTIONER

Primary care physician needed for growing adult medical practice - Pikesville. Contact Louis W. Miller MD or Harry Walen MD, Naylors Court Health Associates. 301-484-5684.

MEDICAL HOUSE OFFICERS NEEDED

Full & part-time medical house officers (BC/BE) needed in 200-bed acute care facility in Baltimore. Flexible hours. Requires completion of approved medical residency program & ICU experience. ACLS preferred. Send CV to Box 13 *MMJ*, 1211 Cathedral St., Baltimore, MD 21201.

OFFICE SPACE FOR RENT

1,500 sq ft office on hospital property; radiology, lab, and pharmacy in building; ample parking. St. Agnes Medical Center. Wilkens & Pine Heights Aves., Baltimore, MD 21229 (301-644-3099).

CLINIC FOR SALE

Flourishing clinic, well established with X-ray and lab, over 5,000 active patients. Ideally located; excellent for starting Family Practitioner or Internist. Contact Medical Director, Patapsco Medical Center, 3438 Annapolis Rd., Baltimore, MD 21227.

SHARE OR SUBLEASE BETHESDA OFFICE SPACE

Child/Adult Neurologist is looking for compatible Med/Surg physician(s) to share or sublease up to 3,600 sq ft of furnished office space in downtown Bethesda. Convenient to Metro-Red Line, ample parking. Available services include EMG, NCV, EEG, CAT scan, neuropsych testing, furnished eye room. Staff support and office services as needed. Must see...walk through! 301-656-1212.

MEDICAL OFFICE SPACE FOR SUBLEASE

1,700 sq ft for full or part-time use. Fully equipped treatment and exam rooms; OR with surgical table and scrub sink. 301-255-0040.

OFFICE EQUIPMENT FOR SALE

6 Baumonometer wall units, 4 Welch Allen wall-mount otoscopes, 4 Hamilton-Omni exam tables, 5 Hamilton treatment cabinets, 2 treatment tables, 1 Scale Heathmeter, 1 Burdick 12-lead EKG, 1 Bricker 12-lead EKG, 1 Spirotech computerized spirometer w/ bellows, 1 Grason-Stadler 1703C audiometer, 1 hearing booth 1AC 250 mini-booth, 1 sight screener II A/O, patient file cabinets. All equipment less than 5 yrs. old. Call Dr. Paul Terpeluk for more detailed information at 301-306-7606.

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Members of the Medical and Chirurgical Faculty shall be entitled to one complimentary ad insertion for personal use each calendar year (PAs count as one member). Items will be related to the practice of medicine. Spouses of deceased members shall be entitled to two complimentary insertions for the disposal of the deceased physician's practice or equipment.

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Family Practice or Emergency Physicians for fast-track area of busy hospital Emergency Department. Part-Time/Full-Time positions available.

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Anne Salmon Barone, Ph.D., M.D.
St. Agnes Hospital
900 S. Caton Avenue
Baltimore, MD 21229
(301) 368–2000 or
(301) 368–2012

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M.D.'s with general medical, pediatric, surgical, or Family Practice background to work as urgent care physicians in busy hospital Emergency Department. Part-time/full-time positions available.

For details, contact: Dan K. Morhaim, M.D.
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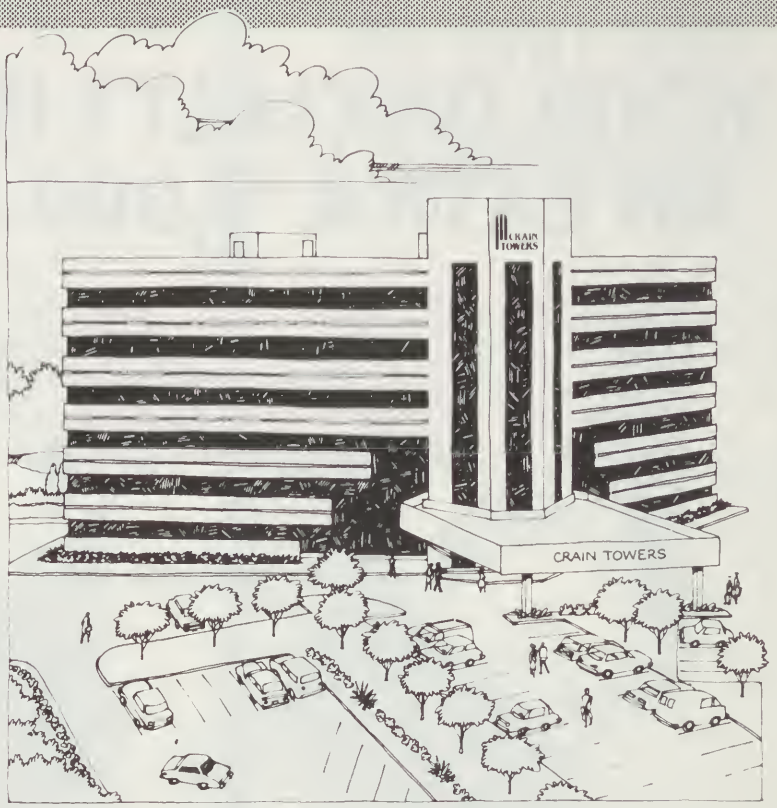
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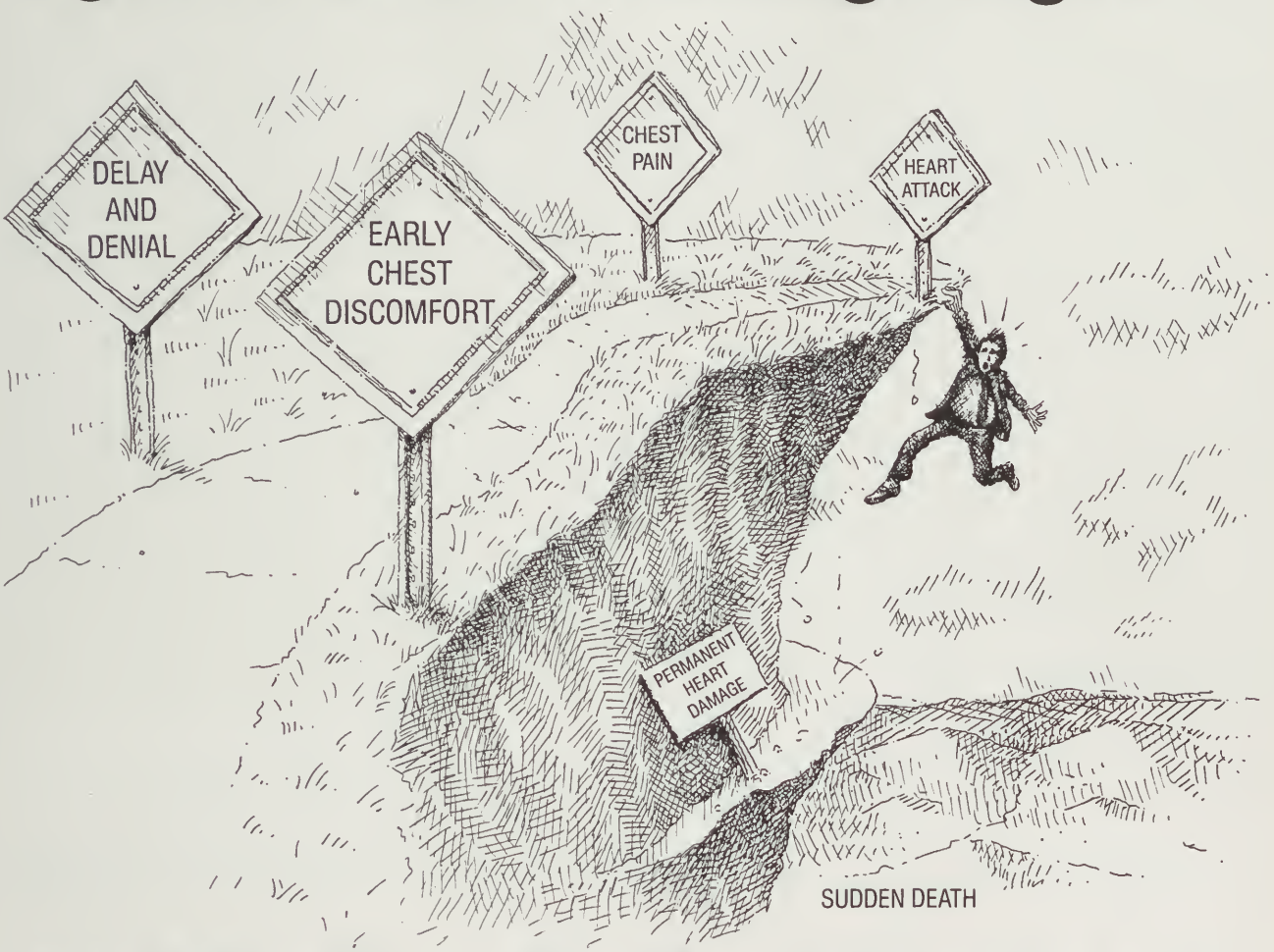
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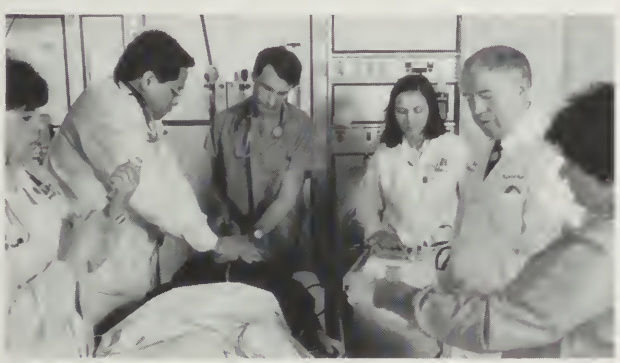
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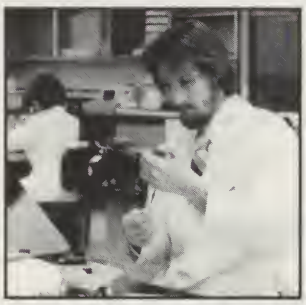
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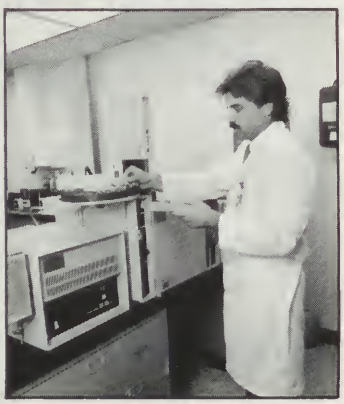
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Cover excerpt: Luc Montagnier MD of the Pasteur Institute of Paris and discoverer of the AIDS virus. Originally printed in Omni, December 1988.

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February 1990

Current Treatment Guidelines for Sexually Transmitted Diseases

The Centers for Disease Control published updated treatment guidelines for Sexually Transmitted Diseases (STD) in Morbidity and Mortality Weekly Report, September 1, 1989 Vol. 38, No. S-8.

In the last issue we provided the treatment guidelines for early, late latent, cardiovascular and neurosyphilis, and a protocol for syphilis diagnosis and treatment. In this issue, we will provide, abstracted from the above cited MMWR, guidelines for Penicillin Therapy, Jarisch-Herxheimer reaction, Persons Exposed to Syphilis, Syphilis in Pregnancy, Congenital Syphilis and Syphilis in HIV-infected Patients. The 1989 Sexually Transmitted Diseases Treatment Guidelines are being reprinted in their entirety and will be available in 4 weeks. Interested health care providers may obtain copies by contacting their local health department.

Penicillin Therapy

Penicillin is the preferred drug for treating patients with syphilis. Penicillin is the only proven therapy that has been widely used for patients with neurosyphilis, congenital syphilis, or syphilis during pregnancy. For patients with penicillin allergy, skin testing with desensitization, if necessary, is optimal (see 1989 STD Treatment Guidelines). However, the minor determinant mixture for penicillin is not currently available commercially.

Jarisch-Herxheimer Reaction

The Jarisch-Herxheimer reaction is an acute febrile reaction, often accompanied by headache, myalgia, and other symptoms, that may occur after any therapy for syphilis, and patients should be so warned. Jarisch-Herxheimer reactions are more common in patients with early syphilis. Antipyretics may be recommended, but no proven methods exist for preventing this reaction. Pregnant patients, in particular, should be warned that early labor may occur.

Persons Exposed to Syphilis (Epidemiologic Treatment)

Persons sexually exposed to a patient with early syphilis should be evaluated clinically and serologically. If the exposure occurred within the previous 90 days, the person may be infected yet seronegative and therefore should be presumptively treated. (It may be advisable to presumptively treat persons exposed more than 90 days previously if serologic test results are not immediately available and follow-up is uncertain.) Patients who have other STD may also have been exposed to syphilis and should have a serologic test for syphilis. The dual therapy regimen currently recommended for gonorrhea (ceftriaxone and doxycycline) is probably effective against incubating syphilis. If a different, non-penicillin antibiotic regimen is used to treat gonorrhea, the patient should have a repeat serologic test for syphilis in 3 months.

Syphilis in Pregnancy

Screening

Pregnant women should be screened early in pregnancy. Seropositive pregnant women should be considered infected unless treatment history and sequential serologic antibody titers are showing an appropriate response. In populations in which prenatal care utilization is not optimal, patients should be screened, and if necessary, treatment provided at the time pregnancy is detected. In areas of high syphilis prevalence, or in patients at high risk,

screening should be repeated in the third trimester and again at delivery.

Treatment

Patients should be treated with the penicillin regimen appropriate for the woman's stage of syphilis. Tetracycline and doxycycline are contraindicated in pregnancy. Erythromycin should not be used because of the high risk of failure to cure infection in the fetus. Pregnant women with histories of penicillin allergy should first be carefully questioned regarding the validity of the history. If necessary, they should then be skin tested and either treated with penicillin or referred for desensitization (see 1989 STD Treatment Guidelines). Women who are treated in the second half of pregnancy are at risk for premature labor and/or fetal distress if their treatment precipitates a Jarisch-Herxheimer reaction. They should be advised to seek medical attention following treatment if they notice any change in fetal movements or have any contractions. Stillbirth is a rare complication of treatment; however, since therapy is necessary to prevent further fetal damage, this concern should not delay treatment.

Follow-Up

Monthly follow-up is mandatory so that retreatment can be given if needed. The antibody response should be the same as for nonpregnant patients.

HIV Testing

All syphilis patients should be counseled concerning the risks of HIV and be encouraged to be tested for HIV antibody.

Congenital Syphilis

Who Should be Evaluated

Infants should be evaluated if they were born to seropositive (nontreponemal test confirmed by treponemal test) women who:

- Have untreated syphilis; **or**
- Were treated for syphilis less than 1 month before delivery; **or**
- Were treated for syphilis during pregnancy with a non-penicillin regimen; **or**
- Did not have the expected decrease in nontreponemal antibody titers after treatment for syphilis; **or**
- Do not have a well-documented history of treatment for syphilis; **or**
- Were treated but had insufficient serologic follow-up during pregnancy to assess disease activity.

An infant should not be released from the hospital until the serologic status of its mother is known.

Evaluation of the Infant

The clinical and laboratory evaluation of infants born to women described above should include:

- A thorough physical examination for evidence of congenital syphilis
- Nontreponemal antibody titer CSF analysis for cells, protein, and VDRL
- Long bone x-rays
- Other tests as clinically indicated (e.g., chest x-ray)
- If possible, FTA-ABS on the purified 19S-IgM fraction of serum (e.g., separation by Isolab columns)

Therapy Decisions

Infants should be treated if they have:

- Any evidence of active disease (physical examination or x-ray); **or**
- A reactive CSF-VDRL; **or**
- An abnormal CSF finding (White blood cell count > 5/mm^3 or protein > 50 mg/dl)* regardless of CSF serology; **or**
- Quantitative nontreponemal serologic titers that are fourfold (or greater) higher than their mother's; **or**
- Positive FTA-ABS-19S-lgM antibody, if performed.

Even if the evaluation is normal, infants should be treated if their mothers have untreated syphilis or evidence of relapse or reinfection after treatment. Infants who meet the criteria listed in "Who

Should be Evaluated" but are not fully evaluated, should be assumed to be infected, and treated.

*In the immediate newborn period, interpretation of these tests may be difficult; normal values vary with gestational age and are higher in preterm infants. Other cases of elevated values should also be considered. However, when an infant is being evaluated for congenital syphilis, the infant should be treated if test results cannot exclude infection.

Treatment

Treatment should consist of: 100,000-150,000 units/kg of **aqueous crystalline penicillin G** daily (administered as 50,000 units/kg IV every 8-12 hours) or 50,000 units/kg of **procaine penicillin** daily (administered once IM) for 10-14 days. If more than 1 day of therapy is missed, the entire course should be restarted. All symptomatic neonates should also have an ophthalmologic examination.

Infants who meet the criteria listed in "Who Should be Evaluated" but who after evaluation do not meet the criteria listed in "Therapy Decisions," **are at low risk for congenital syphilis. If their mothers were treated with erythromycin during pregnancy,** or if close follow-up cannot be assured, they should be treated with **benzathine penicillin G,** 50,000 units/kg IM as a one-time dose.

Follow-Up

Seropositive untreated infants must be closely followed at 1, 2, 3, 6, and 12 months of age. In the absence of infection, nontreponemal antibody titers should be decreasing by 3 months of age and should have disappeared by 6 months of age. If these titers are found to be stable or increasing, the child should be reevaluated and fully treated. Additionally, in the absence of infection, treponemal antibodies may be present up to 1 year. If they are present beyond 1 year, the infant should be treated for congenital syphilis.

Treated infants should also be observed to ensure decreasing nontreponemal antibody titers; these should have disappeared by 6 months of age. Treponemal tests should not be used, since they may remain positive despite effective therapy if the child was infected. Infants with documented CSF pleocytosis should be reexamined every 6 months or until the cell count is normal. If the cell count is still abnormal after 2 years, or if a downward trend is not present at each examination, the infant should be retreated. The CSF-VDRL should also be checked at 6 months; if it is still reactive the infant should be retreated.

Therapy of Older Infants and Children

After the newborn period, children discovered to have syphilis should have a CSF examination to rule out congenital syphilis. Any child who is thought to have congenital syphilis or who has neurologic involvement should be treated with 200,000-300,000 units/kg/day of **aqueous crystalline penicillin G** (administered as 50,000 units/kg every 4-6 hours) for 10-14 days. Older children with definite acquired syphilis and a normal neurologic examination may be treated with **benzathine penicillin G,** 50,000 units/kg IM, up to the adult dose of 2.4 million units. Children with a history of penicillin allergy should be skin tested and, if necessary, desensitized (see 1989 STD Treatment Guidelines). Follow-up should be performed as described previously.

HIV testing

In cases of congenital syphilis, the mother should be counseled concerning the risks of HIV and be encouraged to be tested for HIV; if her test is positive, the infant should be referred for follow-up.

Syphilis in HIV-Infected Patients

Diagnosis

- All sexually active patients with syphilis should be encouraged to be counseled and tested for HIV because of the frequency of association of the two diseases and the implications for clinical assessment and management.
- Neurosyphilis should be considered in the differential diagnosis of neurologic disease in HIV-infected persons.
- When clinical findings suggest that syphilis is present but serologic tests are negative or confusing, alternative tests, such as biopsy of lesions, dark-field examination, and direct fluorescent antibody staining of lesion material, should be used.
- In cases of congenital syphilis, the mother should be encouraged to be counseled and tested for HIV; if her test is positive, the infant should be referred for follow-up.

Treatment and Follow-Up

- Penicillin regimens should be used whenever possible for all stages of syphilis in HIV-infected patients. Skin testing to confirm penicillin allergy may be used if minor and major determinants are available (see 1989 STD Treatment Guidelines). However, data on its use in HIV-infected individuals are inadequate. Patients may be desensitized and treated with penicillin.
- No change in therapy for early syphilis for HIV-coinfected patients is recommended. However, some authorities advise CSF examination and/or treatment with a regimen appropriate for neurosyphilis for all patients coinfected with syphilis and HIV, regardless of the clinical stage of syphilis. In all cases, careful follow-up is necessary to ensure adequacy of treatment.
- HIV-infected patients treated for syphilis should be followed clinically and with quantitative nontreponemal serologic tests (VDRL, RPR) at 1, 2, 3, 6, 9, and 12 months after treatment. Patients with early syphilis whose titers increase or fail to decrease (see section on "Follow-Up, Early Syphilis") fourfold within 6 months should undergo CSF examination and be retreated. In such patients, CSF abnormalities could be due to HIV-related infection, neurosyphilis, or both. STD clinics and other providers of STD treatment should ensure adequate follow-up.

Management of Patients with Histories of Penicillin Allergy

Currently, no proven alternative therapies to penicillin are available for treating patients with neurosyphilis, congenital syphilis, or syphilis in pregnancy. Therefore, skin testing -- with desensitization, if indicated -- is recommended for these patients.

Skin Testing

Skin testing is a rapid, safe, and accurate procedure (see 1989 STD Treatment Guidelines). It is also productive; 90% of patients with histories of "penicillin allergy" have negative skin tests and can be given penicillin safely. The other 10% with positive skin tests have an increased risk of being truly penicillin-allergic and should undergo desensitization. Clinics involved in STD management should be equipped and prepared to do skin testing or should establish referral mechanisms to have skin tests performed.

Skin testing is quick; four determinants, along with positive and negative controls, can be placed and read in an hour (See 1989 STD Treatment Guidelines). Skin testing is also safe, if properly performed. Patients who have had a severe, life-threatening reaction in the past year should be tested in a controlled environment, such as a hospital setting, and the determinant antigens diluted 100-fold. Other patients can be skin-tested safely in a physician-staffed clinic. Patients with a history of penicillin allergy but with no reaction to penicillin skin tests, who are not on antihistamines and who had a positive histamine control on skin testing (See 1989 STD Treatment Guidelines for details), should be given **penicillin**, 250 mg orally, and observed for one hour. Patients who tolertate this dose well may be treated with penicillin as needed.

Desensitization

Patients who have a positive skin test to one of the penicillin determinants can be desensitized. This is a straightforward, relatively safe procedure. Although the procedure can be done orally or intravenously, oral desensitization is thought to be safer, simpler, and easier. Desensitization should be done in a hospital setting because serious IgE-mediated allergic reaction, although unlikely, can occur. Desensitization can be completed in 4 hours, after which the first dose of penicillin is given (See table in 1989 STD Treatment Guidelines for further details). STD programs should have a referral center where patients with positive skin tests can be desensitized. After desensitization, patients must be maintained on penicillin for the duration of therapy.

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Major Issues in the Treatment of Hyperactive/Inattentive Children

Stimulant treatment of hyperactive/inattentive youngsters has become a media event once again, in large measure because a few sensationalistic reporters and self-styled experts have attempted to make the issue a frightening and thus controversial one. In contrast, scientific writings on the subject exhibit far greater agreement than disagreement and have raised some concerns but no alarm. To briefly focus on some of the major issues that have stirred the public interest, the following often-asked questions will be considered.

Question: How many school children are on stimulant treatment for hyperactivity/inattentiveness in the United States?

Answer: A conservative estimate is 3/4 million or 1.5 to 2 percent of the school-aged population.

Question: Do more students in Maryland receive stimulant medication than their counterparts from other states?

Answer: Yes,[2] but the reasons for this are unclear since stimulant medication treatment in Utah and Georgia is about the same as in Maryland.

Question: Aren't major law suits pending on the use of stimulant treatment?

Answer: No. The threatened and pending law suits in general appear to lack merit and are part of a well-financed campaign sponsored mainly by the Church of Scientology[3] to get the media to publicize complaints about stimulant medication for hyperactivity.

Question: Who should be considered for a trial of stimulant treatment?

Answer: Primarily children with a persistent *developmental* pattern of restlessness/inattentiveness/impulsivity who because of these characteristics exhibit serious maladjustment in their classrooms and possibly at home.[4-7]

Question: Should more conservative treatment be tried first?

Answer: Systematic family and/or school behavior modification efforts should be tried early, particularly if such services are available and affordable, the child is young, the severity of the problem is minor to moderate, and the involved adults are motivated to establish baseline ratings, follow a contract, give meaningful reinforcers, assist in the modification of procedures, etc.[5-7]

Question: Is stimulant medication with educational counseling a sufficient treatment intervention?

Answer: During the early and mid-elementary school period (provided the disorder is uncomplicated and the environment is supportive) stimulant treatment with educational counseling by the physician is often sufficient. For those hyperactive children with a multitude of associated problems, comprehensive treatment programs (including behavior modification, stimulant treatment, and educational remediation) can be more useful.[8,9]

Question: Should the schools be involved in the identification of hyperactive children?

Answer: Schools have the responsibility to identify problems that seriously interfere with classroom adjustment and learning and to work toward their remediation using available school personnel, parental support, and/or the assistance of parentally authorized health care professionals.[4,5]

Question: Should school staff assist in the evaluation of medication treatment outcome?

Answer: If major and persisting classroom problems ultimately lead to a trial of medication, then the treating physician should be informed if his/her treatment is useful and if it remains useful. Close teacher-physician monitoring improves treatment results, but less than half of all students in the US on stimulant treatment receive this necessary assessment.[4,10,11]

Question: Is stimulant medication appropriately and usefully prescribed for hyperactivity?

Answer: In a recent study of public school primary and secondary students on stimulant medication from community physicians, it was found that 76 percent of the youth were clearly and measurably hyperactive and that another 15 percent were notably inattentive before treatment was begun. Furthermore, 93 percent of those on medication initially exhibited prominent benefits from it. Nonetheless, an average of two years later, only 76 percent were still clearly benefiting from the medication.[12] A similar result was obtained by Sleator et al. using a one-month placebo substitution in a school study of stimulant treatment. They found that 25 percent of the children did as well on placebo as on methylphenidate.[13] Thus an average of 25 percent of those maintained on stimulant medication were not clearly benefiting. Such findings again point to a greater need for regular school-based monitoring of the treatment, including annual trials off medication.

Question: Does stimulant treatment result in serious side effects?

Answer: Long-term stimulant treatment for hyperactivity is quite safe.[4-7] Stimulants have been used to treat hyperactivity for over 50 years, and no permanent adverse effects or deaths have been reported from their use. Growth suppression induced by stimulant medication is now generally recognized as a temporary phenomenon.[14] When side effects to stimulant treatment occur, they are characteristically minor and in

nearly all cases prominently lessen or cease following weeks of continued use.[5-7] When the need presents, a dose reduction also will accomplish this. Of note is a stimulant-induced accentuation of tics or vulnerability to tic movements, which occurs in a small percentage of hyperactive children.[15] As such, this fully reversible medication side effect presents no major difficulty for experienced physicians.

Question: Does stimulant treatment in childhood increase the risk of later substance abuse?
Answer: No.[16]

Question: Aren't stimulants a quick fix?
Answer: In the 75 percent of treatment cases when medication is measurably successful, it results in rapid improvement.[5-7] However, it commonly produces only a partial "fix." That is, whereas it quickly lessens undue restlessness, inattentiveness, and impulsiveness in the classroom, it does not resolve learning problems and pervasive behavior problems.[11] Furthermore, its effects don't persist after the cessation of treatment. If behavior modification/educational remediation is the slow "fix," it too is only a partial one. After stopping these interventions, a gradual decline in their relative benefits takes place, usually within 4 to 12 months.[5]

Question: Do stimulants improve learning?
Answer: Stimulants commonly improve short-term memory, attention span, completion of school work, grades and handwriting.[11] However, in long-term outcome studies, other factors (such as genetic endowment/IQ and family support) are prominently related to academic outcome,[16,17] not a history of stimulant treatment.

Question: Does stimulant treatment have long-term behavioral benefits?
Answer: Stimulant treatment clearly reduces hostile interchanges between parent and child and between teacher and pupil,[18,19] and it tends to reduce grade retention and referral to special education. However, long-term outcome studies again reveal that other factors have far more impact on late adolescent and young adult behavior patterns than does prior stimulant treatment.[16,20]

Question: Isn't the diagnosis of attention deficity hyperactive disorder vague?
Answer: When the developmental history and background data are obtained in some detail and the child's attentional/hyperactive patterns are found to be persisting, major, and generalized, the diagnosis is usually evident. The diagnosis is not established on the basis of one teacher's report. Extensive additional diagnostic work is useful and particularly necessary to evaluate problems that commonly coexist with developmental hyperactivity, such as conduct disorder and learning disability. The extended evaluation then mainly determines how broad based treatment perspectives will need to be.

Question: Do scientists know the cause for hyperactivity?
Answer: Nothing is firmly established except that genetic factors play a major causative role in 10 to 35 percent of cases of hyperactivity.[21] Almost all the other likely etiologic factors and correlational links to hyperactivity are biological in nature.[5]

References

1. Safer DJ, Krager JM. A survey of medication treatment for hyperactive/inattentive students. JAMA 1988;260:2256-58.
2. Drug Enforcement Administration. Quarterly Per Capita Consumption of Drugs by State: Fourth Quarter 1986. Washington, DC, 1987.
3. Cowart VS. The Ritalin controversy; What's made this drug's opponents hyperactive? JAMA 1988;259:2521-23.
4. Committee on Children with Disabilities and Committee on Drugs. Medication for children with an attention deficit disorder. Pediatrics 1987;80:758-60.
5. Safer DJ, Allen RP. Hyperactive Children: Diagnosis and Management. Baltimore: University Park Press, 1976.
6. Ross DM, Ross SA. Hyperactivity: Current Issues, Research and Theory, 2nd Ed. New York: Wiley, 1982.
7. Barkley RA. Hyperactive Children: A Handbook for Diagnosis and Treatment. New York: Guilford Press, 1981.
8. Backman J, Firestone P. A review of psychopharmacological and behavioral approaches to the treatment of hyperactive children. Am J Orthopsychiatry 979;49:500-504.
9. Satterfield JH, Satterfield BT, Cantwell DP. Three-year multi-modal treatment study of 100 hyperactive boys. J Pediar 1981;98:650-55.
10. Weithorn C, Ross R. Who monitors medication? J Learn Disabil 1975;8:458-61.
11. Gadow KD. Children on Medication, Vol. 2. San Diego: College-Hill Press, 1986.
12. Sager D, Krager, JM. Hyperactivity and inattentiveness: School assessment of stimulant medication. Clin Pediatr 1989;28:216-21.
13. Roche AF, Lipman RS, Overall JE et al. The effects of stimulant medication of the growth of hyperactive children. Pediatrics 1979;63:847-50.
14. Sleator E, Von Neumann A, Sprague R. Hyperactive children: A continuous long-term, placebo-controlled follow-up. JAMA 1974;229:316-17.
15. Sverd J, Gadow KD, Paolicelli, LM. Methylphenidate treatment of attention-deficit hyperactivity disorder in boys with Tourette's Syndrome. J Am Acad Child Adolesc Psychiatry 1989;28:574-79.
16. Weiss G, Hechtman LT. Hyperactive Children Grown Up: Empirical Findings and Theoretical Considerations. New York: Guilford Press, 1986:118-41.
17. Jencks, C. Inequality: A Reassessment of the Effect of Family and Schooling in America. New York: Basic Books, 1972.
18. Whalen C, Henker B, Dotemoto S. Methylphenidate and hyperactivity: Effects on teacher behaviors. Science 1980;208:1280-82.
19. Barkley RA, Cunningham CE. The Effects of methylphenidate on the mother-child interactions of hyperactive children. Arch Gen Psychiatry 1979;36:201-208.
20. Riddle KD, Rapoport JL. A 2-year follow-up of 72 hyperactive boys. J Nerv Ment Dis 1976;162:126-34.
21. Vandenberg SG, Singer SM, Pauls DL. The Heredity of Behavior Disorders in Adults and Children. New York: Plenumm 1986:223-27.

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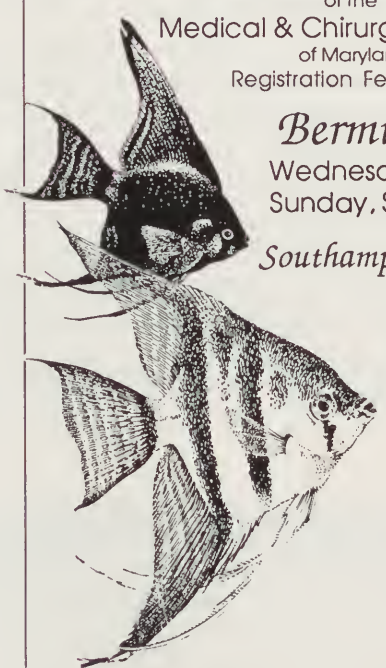
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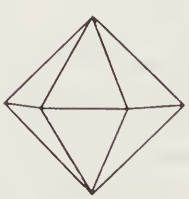
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Executive Director's Newsletter

February 1990

Join the Team. Be a Part of Project 1%

Med Chi and the Medical Mutual Liability insurance society have worked hard to lower liability insurance premiums and now their efforts are paying off *for you*. Since 1988, many Maryland physicians have received a 30% **reduction** in liability insurance premiums due in large part to legislative reforms. To help keep these low rates, all Maryland physicians are urged to join Project 1%, a new program that will provide ongoing research and objective data necessary to promote a better understanding of issues involving access and quality of health care in Maryland. To fund this research, Med Chi is asking physicians to contribute at least 1% of your premium reduction to Med Chi's Charitable Educational Trust. This contribution is tax deductible and will be used solely for research and education. To make a contribution to Project 1% send a check or money order made payable to the Charitable Educational Trust, to Project 1%, Med Chi, 1211 Cathedral St., Baltimore, MD 21201. For more information, contact Med Chi's Communications Department at 1-800-492-1056 or in Baltimore, 301-539-0872.

5% Premium Discount for Physicians tending Seminar

During a press conference held on January 5, 1990, Med Chi President Raymond M. Atkins MD and Medical Mutual Chief Executive Officer Raymond M. Yow MD announced their sponsorship of a workshop for physicians entitled, "Effective Communications: A Risk Management Strategy." Dr. Yow stated that, "Because communication plays an important role in professional liability, Med Mutual will offer a 5% premium discount on 1991 medical professional liability renewal policies to all Med Mutual members who successfully complete this workshop in 1990." The workshop, provided by Communications Systems, Inc., fulfills 3 Category 1 CME credits and will teach physicians how improved communications skills can enhance the quality of care and reduce the risk of malpractice claims. For more information regarding dates of the seminar and registration information, contact Betsy Newman, Med Chi Public Relations at 1-800-492-1056 or in Baltimore, 301-539-0872.

1990 Annual Meeting

AMA Trustee Lonnie Bristow MD, will speak on "Health Care Financing: An American Solution" at the plenary session during Med Chi's 1990 Annual Meeting "The 1990s: What Can We Expect?", to be held on May 9-11, 1990 at Turf Valley Hotel and Country Club in Ellicott City, MD. Thomas Reardon MD, a commissioner from the Physician Payment Review Commission (PPRC) will speak on, "Physician's Payment, Potential Changes:

Issues and Answers." The PPRC is the key commission regulating Medicare fees and in developing new physician pa ment systems. Watch for registration and hotel reservation inf mation in upcoming issues of the *MMJ*.

Med Chi Warning on Home Medical Equipment

Med Chi has heard from a number of physicians regarding t inappropriate solicitation of Medicare beneficiaries by dura home medical equipment suppliers. Physicians are remind that physician certification of medical necessity must accompa all claims for durable medical equipment. Effective January 1990, the Maryland carrier will not consider certifications co pleted by anyone other than the prescribing/certifying physici who signs the certification as acceptable evidence of the medi necessity of durable medical equipment. The Maryland Att ney General's Office has documented several cases where me cal equipment suppliers have used questionable marketi and/or advertising techniques to convince Medica beneficiaries that they need various home medical equipm and/or supplies and that Medicare will pay for these suppli In September 1989, Med Chi and BCBS of Maryland urg Medicare recipients to check with their physician before purch ing home medical equipment. As a result of these warnings, least one medical equipment supplier has left the state.

Physician Assistant Regulations

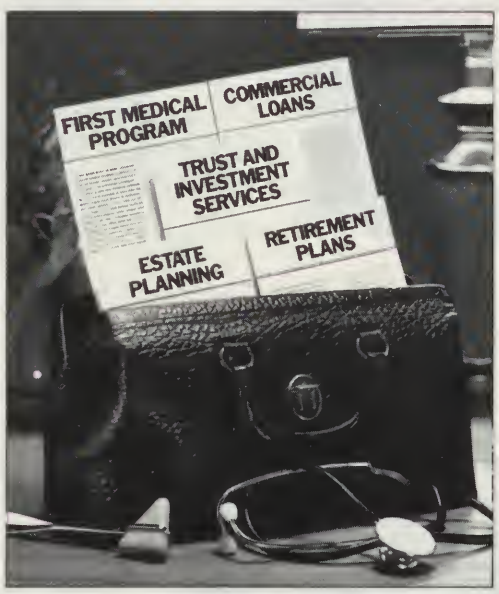
Physicians are reminded that Maryland law requires t physician assistants may only perform those delegated medi acts outlined in the job description submitted to the Board Physician Quality Assurance. "Job description, means a do ment executed by a physician assistant and physician that h been approved under this title to permit the delegation of me cal acts to a certified physician assistant" (HO.Sec.14.5-101(Any physician assistant who performs medical acts (or a physician who aids that practice) not outlined within the description is subject to disciplinary action by the Boa (HO.Sec.14-504(a)(18), Sec.14-5-312(5)).

Med Chi helps to defeat ETs

Med Chi thanks all those Maryland physicians who help defeat the Expenditure Targets proposal in 1989. The AM lobbied hard to prevent this proposal that would have limited the amount paid for physician's services under Medica Following the defeat of ETs Congress created the Medic volume performance standard (MVPS), a mechanism to prov detailed data to Congress on service volume and intensity ch ges. Under MVPS, the Secretary of Health and Human Servi must analyze the factors behind the growth in expenses such patient demand, new technology, and the aging and the grov of the Medicare population. The AMA is optimistic that MV will provide a more rational and equitable analysis of the curr system.

Angelo J. Troisi, FA
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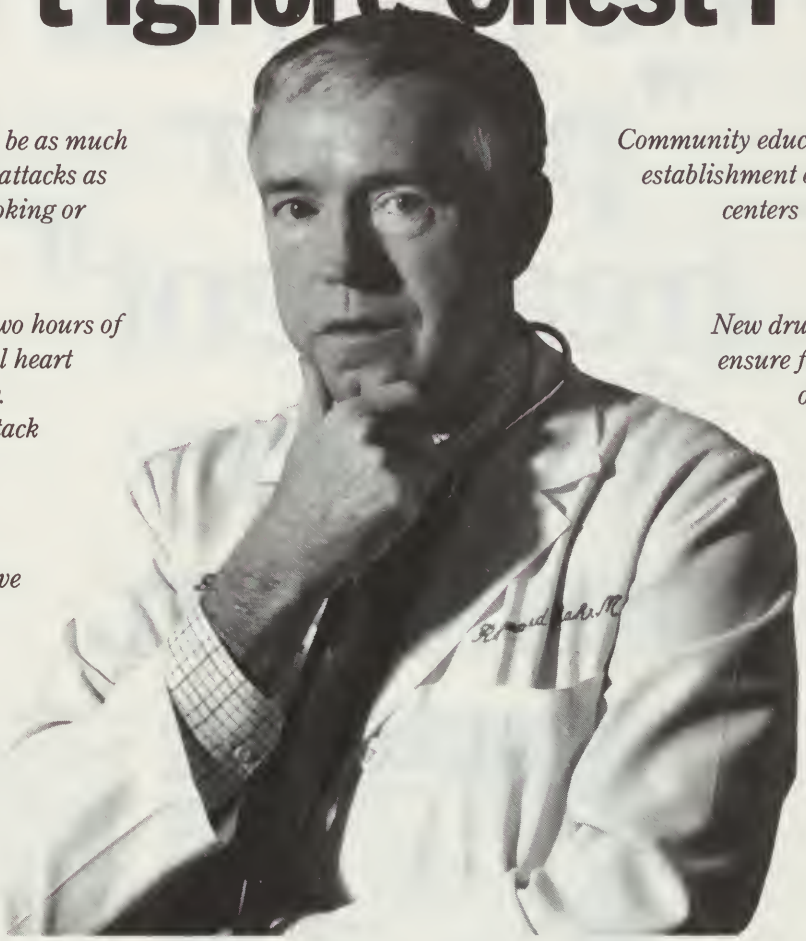
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Ignoring chest pain can be as much of a risk factor in heart attacks as elevated cholesterol, smoking or high blood pressure

Treatment in the first two hours of a heart attack saves vital heart muscles, speeds recovery. Nearly 70% of heart attack sufferers die within two hours of an attack.

Every family should have at least one member who is trained in CPR and alert to the need to act quickly at the first onslaught of chest discomfort or pain. This emergency care giver is essential.



Community education programs and the establishment of chest pain emergency centers in community hospitals can reduce fatalities.

New drugs and techniques often ensure full recovery and quality of life if the victim seeks medical care quickly at the first sign of chest pain or discomfort.

Psychological factors of denial or delay must be avoided by anyone suffering chest pain or chest discomfort.

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Chest Pain Emergency Center at St. Agnes Hospital

In Baltimore, St. Agnes Hospital operates a seven-bed Chest Pain Emergency Center. Immediately upon arrival, a patient with chest pain is rushed through a special entrance to the Chest Pain Emergency Center. A trained team of doctors and nurses immediately analyze the patient's condition and begin stabilization procedures. There is no delay. Patients continue to be monitored until they are transferred to the hospital's Coronary Care Unit. For more information about early chest pain warning and treatment, details about establishing a Chest Pain Emergency Center in a community hospital or a free video tape describing how to network with your community and set up a cardiac outreach program, write or call Dr. Raymond D. Bahr, St. Agnes Hospital, 900 Caton Avenue, Baltimore, MD 21229, **(301) 368-3217.**

Introduction
AIDS: Living Long and Living Well

As the debate over the AIDS epidemic rages, there is no area more controversial than the efficacy of various treatments for the disease. The mainstream medical community, while holding out some hope in recently developed treatments, is far from claiming or believing that a cure has been developed. However, as with many of the other diseases that have frustrated man's best efforts to thoroughly understand and cure them, non-traditional treatment modalities have become popular among AIDS sufferers who do not see an imminent cure in traditional medicine.

While waiting for a truly reliable treatment to be found, tested, and approved, many AIDS sufferers have turned to the unproved but apparently medically harmless treatments that may result in a physical or psychological advantage in battling the disease. It is hoped that such treatments prolong life. If such extra time means being closer to receiving a medical cure, the administration of the treatment may be of value. This issue of *MMJ* explores many of the traditional and some of the less traditional approaches to the treatment and prevention of AIDS with the hope of broadening the discussion of the disease and of providing direction for interim measures to today's AIDS sufferer who may be tommorow's AIDS survivor.

MMJ Editorial Board

AIDS - Living Long and Living Well: An Idea Whose Time Has Come

Donald M. Pachuta MD

The author is Chairman of the Medical and Chirurgical Faculty Committee on AIDS and acted as guest editor for this issue.

We think that time is now for living long and living well with HIV-1 infection and AIDS.

Since the beginning of the AIDS epidemic, we have been bombarded by a great deal of negativity. We have been led to believe that this will be the first epidemic in history with a 100 percent mortality rate, everyone with Human Immunodeficiency Virus type l (HIV-1) infection will eventually develop AIDS, and, therefore, the presence of HIV-l in a person is a death sentence. Could all this be a self-fulfilling prophecy? Has it been up to now? Can we change it?

Unlike previous epidemics, patient care has been particularly complicated throughout this one. People have turned away from traditional medicine in large numbers seeking anything that would alter these fatalistic predictions. It has been difficult to do controlled trials in research because many/most of the subjects in some areas of the country are taking multiple other medications without telling their physicians or the investigators.

The governmental response has been severely criticized by the Congress, the news media, physicians, and the gay community among others. Policy making has been called over-reactive, detached from reality, and crisis driven for the last nine years.[1,2] Physicians have confronted difficulties including information overload; inadequate reimbursement; fears of infection, of loss of other patients, and of death; hopelessness; ethical dilemmas; burnout; dislike of the patient populations; and homophobia.[3,4]

This is an epidemic of discrimination.[5] People are being denied insurance as well as their fundamental rights to employment, housing, education, etc. Family, friends, and lovers frequently reject or ostracize them leading to loneliness and depression. Sadly, ignorance and fear still abide with us.

Through all of this there is a great deal of good news. When the Medical and Chirurgical Faculty of Maryland Committee on AIDS discussed and planned a series of articles for this special issue of *MMJ*, we thought we could best serve everyone by adopting the theme of our committee: *Living long and living well with AIDS and HIV-1 infection is an idea whose time has come.*

Dr. Louis W. Sullivan, Secretary of the Department of Health and Human Services, and Dr. Anthony S. Fauci, Head of the National Institutes of Allergy and Infectious

Diseases, declared that HIV-1 infection should be regarded as a chronic, manageable disease, like diabetes. Several of our authors echo their sentiments.

From the myriad of possible topics and potential articles, we have selected those we believe will reflect this optimism, relieve fear, overcome negativity, offer an education as well as hope for physicians, caregivers, their patients, and the public; stimulate their intellectual curiosity; challenge participation in helping relieve the suffering of the epidemic; and perhaps suggest some new ideas.

The update by Dr. John Bartlett, Chief of the Infectious Disease Division at Johns Hopkins University School of Medicine and one of the leading authorities in the world on the management of asymptomatic HIV-1 infection, presents the latest research. He also presents an excellent discussion of counseling and the impact of social and financial issues.

The discussion by Dr. Richard Chaisson, Director of AIDS Services at Johns Hopkins Hospital, on the prevention of infection is likewise a synthesis in an area that seems so complex to most physicians but is really quite straightforward and simple in the way he presents it.

Drs. John Zurlo, Asstistant Director, and H. Clifford Lane, Deputy Clinical Director of the National Institutes of Allergy and Infectious Diseases present the latest research on antiviral therapy including what holds promise for the future. Once again their conclusion, "a disease which was once viewed as an automatic death warrant, is now in the process of becoming a chronic, potentially long-term treatable illness" certainly supports the premise of this issue. Together these articles clearly demonstrate the scientific basis for the treatment of AIDS and HIV-1 infection as a chronic manageable disease.

Dr. John Johnson, Chief of the Pediatric AIDS Service at the University of Maryland and Dr. Mark Smith, Associate Director of AIDS Services at The Johns Hopkins Hospital elaborate on integrated health care systems. They bring home many points necessary to support *living long and living well.* They especially emphasize the fact that the management of HIV-1 infection belongs in the realm of primary care.

Robert Mehl of the Baltimore City Health Department, a person living with AIDS, asks us to re-examine the physician/patient relationship, which is ever changing in this epidemic.

The Commentary by Dr. Bernie Siegel, a surgeon on the faculty of Yale Medical School, who in his two bestselling books, *Love, Medicine and Miracles* and *Peace, Love and Healing* has challenged all physicians to return to their heritage of optimism and caring, urges us to have all of our patients be "exceptional."

The article by Dr. Charles Steinberg, a family physician and founder of Wellspring in Boulder, Colorado provides an excellent overview of the care of the patient as well as some information on complementary types of therapies patients are seeking, an area about which most of us know very little. This article, the first such published summary, will help us understand some of the therapies most HIV-1 patients are doing on their own, allowing us to at least discuss these issues with them whether or not we agree.

My article presenting a somewhat different view on some of the major questions of this epidemic stimulate some discussion and challenge. Dr. Bartlett's Counterpoint commentary provides an immediate response to this challenge.

Finally, we refer our readers to the Medical and Chirurgical Faculty Position Paper on AIDS published in the January *MMJ* on page 35.

We hope you will be challenged, stimulated, and moved by this series and that you also will become part of making living long and living well *an idea whose time has come.*

References

1. Arno PS, Shenson D, Siegel NF et al. Economic and policy implications of early intervention in HIV disease. JAMA 1989; 262:1493-98.
2. Osborne JE. AIDS: Politics and science. N Engl J Med 1988;318:444-47.
3. Cooke M, Sande MA. The HIV epidemic and training in internal medicine. N Engl J Med 1989;321:1334-38.
4. Schlotterer W. Primary care for those with AIDS. Patient Care 1989;Nov 15:15.
5. Blendon RJ, Donelank K. Discrimination against people with AIDS: The public's perspective. N Engl J Med 1988;319:1022-26.■

Management of Patients with Asymptomatic HIV Infection

John G. Bartlett MD

The author is Chief, Division of Infectious Disease, The Johns Hopkins University School of Medicine.

As much or more is now known about AIDS as about any other infection. Very recent developments permit medical intervention at an early stage when the patient lacks symptoms. Testing should be expanded to detect the newly infected; treatment should begin early when it is thought to be most effective.

First reported in 1981, AIDS subsequently has become recognized as the most important epidemic of the twentieth century. Approximately 10 million persons in the world (including 50,000 citizens of Maryland) are infected with HIV. The intensive scientific study of this disease during the past nine years has resulted in an extraordinary assembly of scientific information; this once-mysterious disease is now well understood in terms of its biology and clinical features. Although there still is much to learn, we now know as much or more about this infection as about any other. Perhaps most important are the very recent developments permiting medical intervention at relatively early stages of the infection when the patient lacks symptoms. One implication is that testing should be expanded to detect at an early stage those who are infected in order to intervene at a time when treatment is thought to be most effective.

Background

Background data for the recommendations include three components: the natural history of HIV infection, predictors of disease progression, and the utility of AZT and other therapeutic interventions.

The natural history of HIV infection has been examined with multiple studies during the past decade, but three have been especially important: One is the San Francisco City Clinic Cohort Study in which banked sera collected sequentially for studies of hepatitis B permitted retrospective analysis for HIV.[1,2] The second major study is the Multicenter AIDS Cohort Study (MACS) that was designed to determine the natural history of HIV infection in over 4,000 gay men in four cities: Pittsburgh, Los Angeles, Chicago, and Baltimore.[3,4] The third is NIH-FDA Red Cross collaborative study of 156 patients who acquired HIV infection from transfusions, thus the specific time of viral acquisition was documented.[5]

Transmission of the virus often is followed by an infectious mononucleosis-like illness at two to six weeks characterized by fever, sore throat, lymphadenopathy, a maculopapular rash,

hepatosplenomegaly, headache, arthralgias, and leukopenia, often with atypical lymphocytes. This illness sometimes is not recognized and, when it is, symptoms usually resolve in one or two weeks. Recovery is followed by seroconversion, which usually takes place at four to twelve weeks after transmission of the virus. Seroconversion is followed by a long period in which the patient feels generally well. Clinical expression of HIV infection in its later stages reflects three types of pathophysiologic mechanisms:

1. Autoimmune or immune complex disease such as idiopathic thrombocytopenia and cotton-wool spots on funduscopic exam.
2. Opportunistic infections or tumors that generally reflect defective T cell-mediated immunity such as *Pneumocystis carinii* pneumonia, thrush, toxoplasmosis, disseminated CMV infection, disseminated *Mycobacterium avium* infection, disseminated herpes simplex, Kaposi's sarcoma, and B cell lymphoma.
3. HIV infection per se that accounts for AIDS-associated dementia, some other neurologic sequelae and, possibly some of the constitutional symptoms such as fever, weight loss, fatigue, night sweats, and chronic diarrhea.

The average time from seroconversion until there is an AIDS-defining diagnosis is estimated at 7 to 10 years, although there is considerable variation in individual patients.[1-5] About 2 percent have an AIDS-defining diagnosis within two years of seroconversion, and many others have remained apparently well as long as they have been followed, which is up to 10 years. Unfortunately, most who remain asymptomatic have laboratory evidence of progressive immunosuppression with a decline in CD-4 cell counts.[2] On the basis of currently available data, the Centers for Disease Control now estimates that the majority of patients with HIV infection eventually will develop AIDS.[6] This observation has important therapeutic implications justifiying a more aggressive attack at early stages of the disease.

Factors accounting for the highly variable course in different individuals in terms of the speed of progression are ill-defined. Many researchers have invoked "co-factors" including nutrition, wellness, psychological stress, and the like as important considerations. Some suggest antigenic stimulation from any source may be important since this promotes proliferation of the CD-4 cells that harbor HIV. Two viruses that specifically promote HIV replication *in vitro* are HTLV I and CMV. HTLV I is found in only a small percentage of IV drug abusers, but CMV is found in up to 90 percent of patients with AIDS.

Predictors of Progressive HIV Infection

Sequential observations in patients with HIV infection permit tabulation of clinical observations and laboratory studies that indicate disease progression with the probability of an AIDS-defining diagnosis in the near future (Table 1). The clinical observations boding an ominous prognosis are thrush, oral hairy leukoplakia, and constitutional symptoms including weight loss, chronic fever, and chronic diarrhea. Herpes zoster may be an early manifestation of HIV infection, but it does not necessarily indicate progressive disease. Peripheral generalized lymphadenopathy (PGL) is commonly found in many or most patients with asymptomatic HIV infection, but this does not appear to indicate disease progression and has no influence on prognosis.[1] An exception is the patient who has very large nodes that may indicate an opportunistic infection, such as MAI, or a lymphoma; another exception is the patient who has rapid resolution of lymph nodes since this generally corresponds to disease progression.

With regard to laboratory tests, many patients who are asymptomatic show the "cytopenias" meaning anemia, leukopenia, lymphopenia, thrombocytopenia, or combinations of these. Some will have very low platelet counts with or without clinical expression in the form of a bleeding diathesis. This usually represents an autoimmune or immune complex complication that generally responds to corticosteroid administration, splenectomy, AZT, or high-dose imunoglobulin therapy.[7] Elevated erythrocyte sedimentation rate, immunoglobulin levels (IgA and IgG), and beta-2 microglobulin are nonspecific indicators that correlate with disease progression. More specific indicators include p24 antigen assays and the lack of antibody to the p24 antigen by Western blot analysis of serum. However, the complete blood count aside, these tests tend to be nonspecific or expensive, or their utility is primarily based on large population-based studies so their use in an individual case may be less decisive.

The best predictor of progressive disease is the CD-4 cell count, the primary target of HIV.[1,2,5-9] Following attachment, the virus enters the cell, it is uncoated, the genome is converted to DNA by the enzyme reverse transcriptase, and viral DNA then integrates into the cellular DNA of the cell nucleus. Replication of HIV results in rupture of the CD-4 cell with the consequence of CD-4 cell depletion and reduced capacity for cell-mediated immunity. Early studies focused atten-

Table 1. Clinical and Laboratory Features of HIV Infection Indicating Disease Progression

	Correlate with Progressive Disease	No Correlation (or Poor Correlation)
Clinical features	Thrush Oral hairy leukoplakia Constitutional symptoms	Idiopathic thrombocytopenia Herpes zoster (?) Peripheral general lymphadenopathy
Laboratory studies	CD-4 count Anemia B2 microglobulin, ESR Anergy p24 antigenemia Immunoglobulins (IgA)	Thrombocytopenia Leukopenia

tion on the ratio of CD-4/CD-8 cells (the helper T cell to suppressor T cell ratio), but many conditions affect the denominator (CD-8 cell) making the ratio less specific. The ratio is also more expensive to obtain. What is important is the absolute CD-4 cell count or the CD-4 percentage since both correlate well with disease progression.

The usual absolute CD-4 cell count in healthy persons is 800-1200/mm^3. Sequential studies in patients with HIV infection indicate a decline that averages approximately 85-100/mm^3 per year. Serious complications seem to occur with predictability when the count reaches 200/mm^3 or the CD-4 percentage in T cell subset analysis is 20 percent.[6,7] In the MACS study, for example, 33 percent of patients with counts of less than 200/mm^3 developed *Pneumocystis carinii* pneumonia within 18 months; by contrast, the frequency of this complication in the same time frame was only 5 percent for those with CD-4 counts exceeding 500/mm^3 (Table 2). It should be noted that, although the average decline is approximately 100 cells/mm^3 per year, individual patients do not show a gradual decline over time. Instead, the CD-4 count declines in fits and starts that are poorly understood but presumably reflect the combined effects of "cofactors" and the replication regulating genes of HIV. This unpredictability in CD-4 cell count patterns accounts for the recommendation by the Centers for Disease Control for analysis of these counts at six-month intervals.[10]

Treatment

AZT is the only drug approved by the FDA for the treatment of HIV infection. This drug is a nucleoside analog that interferes with reverse transcriptase, a necessary step in converting the RNA genome to DNA prior to integration in the host cell nucleus. The efficacy of AZT was demonstrated in a placebo-controlled clinical trial of 282 patients with AIDS or advanced ARC. Analysis of the data in September 1986 showed 19 deaths in placebo recipients compared to only one among those who received AZT.[11] This was heralded as a major advance, but it applied only to patients in relatively late stages of disease.

More recently, there have been two major advances in drug therapy for patients with HIV infection dealing with earlier stages of disease. The first concerns the prevention of pneumocystis pneumonia using either trimethoprim-sulfamethoxazole or aerosolized pentamidine. Pneumocystis pneumonia is clearly the most important complication in patients with HIV infection in that it is the initial AIDS-defining diagnosis in 60 percent of patients, and it is the most frequent identifiable cause of death. The Centers for Disease Control[11] now recommends preventive treatment with trimethoprim-sulfamethoxazole or aerosolized pentamidine for two patient groups:

1. Patients with a prior history of pneumocystis pneumonia since 60 to 70 percent will develop recurrences within one year.
2. Patients with a CD-4 cell count of less than 200/mm^3 based on the MACS study showing that the risk for PCP at 6, 12, and 18 months are 8 percent, 18 percent and 33 percent, respectively.

The most recent major development in therapeutics of HIV infection are the NIH-sponsored studies in a consortium of 35 academic centers known as the AIDS Clinical Trials Groups (ACTG). Two major trials were concluded in August 1989, both dealing with relatively early stages of disease.[12] The first study included 713 patients with early ARC using AZT in a dose of 1,200 mg per day versus placebo. After 3 to 20 months, 50 participants had progressed to advanced ARC or AIDS including 36 in the placebo group and 14 of the AZT recipients (Table 3).

The second study dealt with about 3,200 asymptomatic patients with HIV infection who were randomized to receive either low-dose AZT (500 mg/day), high-dose AZT (1500 mg/day), or placebo. Progression to advanced ARC or AIDS was noted almost exclusively among the 1,300 participants with CD-4 cell counts of less than 500/mm^3 at entry. In this group, progression was significantly reduced with treatment, and there was no difference in protection

Table 2. Cumulative Incidence of *Pneumocystis pneumonia* According to CD-4 cell Count at Baseline in the MACS Seropositive Cohort

CD-4 count at baseline	Number	No. with PCP(%)	Percentage with PCP 6 mo.	12 mo.	18 mo.
≤ 200	77	19 (25)	8	18	33
201-350	217	47 (22)	0.5	4	23
351-500	389	39 (10)	0	1	9
> 500	982	63 (6)	0	0.2	6

SOURCE: Masur H, Ognibene FP, Yarchoas R et al. CD-4 counts as predictors of opportunistic pneumonias in human immunodeficiency virus (HIV) infection. Ann Intern Med 1989;111:222-23.

Table 3. NIH Sponsored Studies of AZT Treatment in Early Stages of HIV infection

Protocol 016: Early ARC
No. participants: 713
Regimens: AZT (1200 mg/day) vs placebo
Results

	Progression*
AZT group	14
Placebo	36**

Protocol 019: Asymptomatic HIV infection
No. participants: 3,236
Regimens: AZT (500 mg/day) vs AZT (1500 mg/day) vs placebo
Results

	Progression*	Toxicity
AZT (500 mg/day)	17	3%
AZT (1500 mg/day)	19	12%
Placebo	38**	

SOURCE: Hooper C. AZT trials cut short. J NIH Res 1989;1:36.
* Progression to AIDS or advanced ARC.
** Significant difference compared to treatment group (p 0.05).

afforded by the high-dose versus the low-dose. The findings of these studies indicate that progression can be delayed with early treatment using relatively low doses of AZT. Notable advantages of the low dose are the reduced expense (wholesale annual price in November 1989 of $2,190 for the 500 mg daily regimen compared to $4,812 for the 1200 mg/day) and toxicity rates that were virtually nil in the low-dose group.

Patient Evaluation

The data summarized above provide guidelines for patient management. In general, asymptomatic HIV-infected patients require counseling, psychological support, regular medical assessment with appropriate use of vaccines, and interventions with AZT and pneumocystis prophylaxis using CD-4 counts as the major criteria.

All patients who are seropositive must have appropriate counseling to insure they understand the medical and social implications of a positive test, methods to prevent transmission to others, the need to notify persons who have been or will be placed at risk, the implications for pregnancy, and resources that are available for psychological support and medical care. This may not be easy to accomplish in a single session since many patients are so overwhelmed at the time they are first notified that little of the rest of the message is processed. Thus, we often arrange for a follow-up visit within one or two weeks to make sure that the patient understands and is proceeding accordingly. It is ill-advised to notify the patient by any means other than person-to-person contact. These are responsibilities incurred by anyone who performs this test, and all who have participated in this type of notification are aware of the potential for morbid consequences.

Medical assessment The purposes of the medical evaluation are to stage the disease and to provide timely intervention.

The most common initial features of symptomatic disease include thrush, pneumocystis pneumonia, Kaposi's sarcoma, and constitutional complaints such as fever, weight loss, intermittent diarrhea, and fatigue. Kaposi's sarcoma usually presents as nodular lesions with a purplish discoloration in light-skinned persons and black in dark-skinned individuals. Pneumocystis pneumonia in these patients often has an indolent course characterized by fever, nonproductive cough, and dyspnea that frequently extends over several weeks prior to medical presentation. AIDS dementia complex is a relatively common complication in the late stages of this infection, but it is an infrequent finding early in the course. None of these complications occur commonly before the CD-4 cell count is 200 or less. An important exception is tuberculosis, which tends to occur relatively early, presumably reflecting its virulence potential compared to other opportunistic pathogens.

The physical examination should specifically address anatomical sites that are commonly involved. The check list includes the oral cavity (thrush, herpes, aphthous ulcers, oral hairy leukoplakia, and Kaposi's sarcoma), funduscopic exam (cotton wool spots, CMV retinitis), lungs (pneumocystis pneumonia), abdomen (hepatosplenomegaly), lymph nodes (primarily the cervical and axillary nodes), genital exam (for sexually transmitted diseases), skin (Kaposi's sarcoma, seborrhea, molluscum, eosinophilic folliculitis), and neuropsychological exam (AIDS dementia complex, toxoplasmosis, cryptococcal meningitis, and peripheral neuropathies).

Laboratory studies The suggested routine laboratory screening tests for asymptomatic patients include a complete blood count with differential and platelets, SMA-12, syphilis serology, and a CD-4 lymphocyte count. All patients also should have a PPD (intermediate strength) unless there is a history of a previously reactive test. Other laboratory studies that may be useful on occasions include a chest x-ray, sedimentation rate, hepatitis serology, and beta-2 microglobulin levels. Tests that are occasionally advocated (but we believe are infrequently helpful) include quantitative immunoglobulins, anergy screen, p24 antigen assay, p24 antibody assay, viral culture, and CD-4/CD-8 lymphocyte subset ratio.

Medical Interventions

An important recent change in the guidelines for management of HIV infection in asymptomatic patients concerns antiviral therapy and prophylaxis directed against anticipated opportunistic pathogens.

Vaccines All patients with HIV infection are now included in the CDC guidelines for influenza vaccine and pneumococcal vaccine. The influenza vaccine should be given annually, although patients with HIV infection are not known to be uniquely susceptible to influenza in terms of frequency or severity of infection. Pneumococcal vaccine should be given once, preferably in the early stages of infection when there is a relatively good antigenic response to a polysaccharide vaccine. Prior studies have well documented that the frequency of pneumococcal infections is magnified 20 to 40-fold in patients with HIV infection and, although patients with AIDS have an attenuated antigenic response to this vaccine, those who are asymptomatic respond well.[13]

Tuberculosis prophylaxis All patients with a positive PPD (> 5 mm induration) should receive isonazide in a dose of 300 mg per day for at least 12 months. HIV infection is now recognized as the highest risk category for activation of latent disease. Reports from New York City, Florida, and Connecticut indicate 5 to 10 percent of all AIDS patients have active tuberculosis, and most have this as their first opportunistic infection.[14]

Prophylaxis directed against pneumocystis pneumonia This is recommended for any patient with a history of pneumocystis pneumonia and any patient who has a CD-4 cell count of less than 200/mm^3. The two regimens recommended by the CDC[1] are either of the following:

1. Oral trimethoprim-sulfamethoxazole (TMP-SMX), one double-strength tablet given twice daily with 5 mg leucovorin once daily.
2. Aerosolized pentamidine given in a 300 mg

dose every four weeks using a Respigard II jet nebulizer.

The relative merits of these two prophylaxis strategies are unknown. Potential advantages of the oral TMP-SMX regimen are the facts that it may also prevent a multitude of other infections, it is less expensive, and it is certainly more convenient. A potential disadvantage is the high frequency of adverse reactions encountered in HIV-infected patients receiving sulfonamides. A potential advantage of aerosolized pentamidine is the rarity of adverse reactions. Neither treatment should be given to pregnant women. Other regimens to prevent pneumocystis pneumonia do not have the advantage of established efficacy with a clinical trial. Theoretically they should work.[15]

AZT treatment The studies cited above demonstrated convincing benefit for the use of AZT early in the course of HIV infection by preventing progression to advanced ARC or AIDS. Virtually no patients who had CD-4 counts exceeding 500 progressed to these endpoints within the 20 month study period so the potential utility of AZT could not be evaluated. On the basis of observations summarized in Table 3, it is now recommended that AZT be given to any patient with HIV infection and a CD-4 cell count in the range of 200 to 500/mm^3. Patients should be given 100 mg five times daily; the usual regimen is one tablet every four hours while awake. The rationale for the lower dose is based on the previously cited studies showing comparable efficacy and reduced toxicity for the lower dose compared to the previously recommended dose of 1000 to 1200 mg/day.

However, at the time of this writing, the details of these studies have not been published, nor has the FDA reviewed the data to make a recommendation. Furthermore, the annual rate of progression to PCP for those with CD-4 counts of 350-500/mm^3 is only about 2 percent so that efficacy within this strata needs scrutiny, and a delay of weeks or months may have no consequences.

It is clear from conversations with other providers that there is no unanimity on this issue. Some of the arguments favoring status quo (utilization of the prior FDA guidelines) include the following:

- Some physicians may prefer to await an NIH consensus statement expected soon, since this will be formulated by authorities who have access to all the data and/or publication of this material in the medical literature, or FDA review.
- The cut-off point of 500 CD-4 cells was an arbitrary strata defined prior to the NIH study. The specific CD-4 count at which there is a demonstrable benefit from AZT may be substantitally lower, and such information may become available only with further analysis of data. Thus, it is possible that significant benefit is noted only when the CD-4 count is below 350 mm^3.
- The advocacy of AZT for CD-4 counts of less than 500 has enormous economic consequences since this appears to apply to approximately 40 percent of all HIV- infected patients.
- It is possible that viral resistance is an inevitable consequence of AZT therapy, and that early use of the drug negates efficacy in later stages of disease.
- Two other pacebo-controlled studies in asymptomatic HIV infected patients apparently have not demonstrated similar benefit. These include a study in England (the Concorde 1) and a Veterans Administration Hospital cooperative study (VA study #298). Results with interim analysis of these studies are not yet available for publication, although both studies are continuing, suggesting that significant benefit has not been demonstrated.

The dosage recommendation is unclear for patients who have AIDS or symptomatic disease and a CD-4 cell count of less than 200/mm^3, and those who are receiving this drug under the previous FDA guidelines. Another NIH study demonstrated the lower dose seems to be equally effective in patients with this more advanced stage of disease.[12] One problem with lower dose AZT concerns the central nervous system (CNS) manifestations of HIV infection. Most patients have evidence of CNS involvement relatively early in the course when they are still asymptomatic, although AIDS dementia complex is a common feature only in the late stages of disease. AZT penetrates the blood-brain barrier reasonably well, but evidence that the drug delays or reverses CNS complications is limited and it is possible that the higher dose is more effective. On the basis of these observations, we are reluctant to make a strong recommendation regarding the dose of AZT for patients with more advanced disease until we have seen all of the available data.

Patients receiving AZT must be followed carefully for the hematologic toxicity, primarily anemia or neutropenia. The original AZT controlled trial with treatment up to seven months showed 30 percent of AZT recipients with CD-4 counts $< 200/mm^3$ developed anemia with a hemoglobin below 7.5 gm/dL and approximately half required transfusions; 47 percent developed granulocytopenia with leukocyte counts below 750/dL.[10] The current recommendation is for a complete blood count every two to four weeks and monitoring of liver function tests every month. Hematologic toxicity is related to the dose and duration of therapy, to the stage of disease when treatment is initiated and to the pretreatment CBC values. The previously cited trial using 500 mg/day in asymptomatic patients showed virtually no hematologic toxicity; on the basis of this observation, we recommend a complete blood count at monthly intervals with the possibility that this frequency can be further extended as more experience is accumulated.

Patient Monitoring and Costs

The intensity of work, frequency of visits, and resour-

ces necessary for ambulatory care of HIV-infected patients will vary with the stage of disease, which is largely governed by concurrent medical conditions, psychiatric needs, symptoms ascribed to HIV, and CD-4 cell counts. For most patients without compounding issues of psychiatric support or unrelated medical problems, the schema in Table 4 is suggested.

The cost of care will vary according to services provided, medications given, and laboratory tests used. A recent assessment of the costs of ambulatory care for HIV infected patients employed a two-phase model.[16] The first phase was for the patient who received counseling and monitoring without drug therapy, and the second phase was for these services combined with antiretroviral treatment using AZT and pneumocystis prophylaxis. The estimated cost for the first phase was $854/year and for the second was $9,637/year. Although the cost of AZT was somewhat inflated in this analysis ($4,021 to $8,042/yr), it does demonstrate the important economic consequences of new therapeutic strategies.

The screening tests advocated previously will total about $80 to $100. (This is exclusive of HIV serology, which is free at county health departments and $30 to $180 at commercial laboratories in Maryland.) In reference to stages of HIV infection tabulated in Table 4, we estimate approximate annual charges for care for otherwise uncomplicated patients with HIV in stage 1 (CD-4 count $> 500/mm^3$) to be $220 to $280 including laboratory tests ($100 to $150) and two office visits at $60/visit. For stage 2 disease (CD-4 count 200-500/mm^3) the cost will approximate $3,300 to $4,600 based on costs for AZT at $2,600 to $3,200 (based on dose of 500 mg/day at $2,190/yr wholesale price), laboratory charges of $500 to $800, and 4 to 12 office visits at $60/visit. For stage 3a (CD-4 count $< 200/mm^3$, asymptomatic), the costs increase $600 to $2,000/year for pneumocystis prophylaxis. In the late stages of disease, the intensity of medical care increases logarithmically, and costs for care escalate accordingly.

Table 4. Suggested Schema for Medical Care of Patients with HIV Infection

Stage	Clinic Visits	Services
1. CD-4 count $> 500/mm^3$	Every 6 months	Medical assessment and CD-4 cell count; psychological support may require more frequent visits or separate arrangements.
2. CD-4 count 200-500/mm^3	Every month for CBC; every 1-3 months for medical assessment	AZT administration with CBC monthly; CD-4 cell count every 3-6 months; it may be appropriate to actually see the patient at 3 month intervals if clinically stable; AZT hematologic toxicity unlikely.
3. CD-4 count $< 200/mm^3$		
a. Asymptomatic	Every month	AZT administration and PCP prophylaxis; frequency of medical assessment varies with symptomatology.
b. Symptomatic	Every week -month	Frequency of visits based on clinical needs.

Summary

There has been extensive progress in the management of HIV infection. This especially applies to patients in the early asymptomatic stages of disease. Management guidelines include counseling of all seropositive patients, medical evaluation, psychological support, and medical intervention. For the asymptomatic patient, important strategies currently recommended include a CD-4 cell count at six month intervals with the use of AZT for those patients with counts of less than 500/mm^3 and the use of *Pneumocystis carinii* prophylaxis in those with CD-4 counts of less than 200/mm^3. It is likely these recommendations will change in the near future due to the rapid evolution of developments in this field. Most promising are a variety of new antiviral agents and additional measures to prevent superimposed opportunistic infections.

References

1. Lifson AR, Rutherford GW, Jaffe HW. The natural history of human immunodeficiency virus infection J Infect Dis 1988;158:1360-67.

2. Moss AR, Bacchetti P, Osmond D et al. Seropositivity for HIV and the development of AIDS or AIDS-related condition: three year follow-up of the San Francisco General Hospital cohort. Br Med J 1988;296:745-50.

3. Polk BF, Fox R, Brookmeyer R et al. Predictors of the acquired immunodeficiency syndrome developing in a cohort of scropositive homosexual men. N Engl J Med 1987;316:61-66.

4. Kaslow RA, Ostrow DG, Detels R et al. The multicenter AIDS cohort study: rationale, organization, and selected characteristics of the participants. Am J Epidemial 1985;126:310-18.

5. Lietman SF, Klein HG, Melpolder JJ et al. Clinical implications of positive tests for antibodies to human immunodeficiency virus type 1 in asymptomatic blood donors. N Engl J Med 1989;321:917-24.

6. Centers for Disease Control. AIDS and Human Immunodeficiency Virus Infection in the United States: 1988 Update. MMWR 1989;38:1-38.

7. Ratner L. Human immunodeficiency virus-associated autoimmune thrombocytopenic purpura: A review. Am J Med 1989;86:194-98.

8. Masur H, Ognibene FP, Yarchoas R et al. CD-4 counts as predictors of opportunistic pneumonias in human immunodeficiency virus (HIV) infection. Ann Intern Med 1989;111:222-23.

9. Taylor JMG, Fahey JL, Detels R, Giorgi JV. CD-4 percentage, CD-4 number and CD-4:CD-8 ratio in HIV infection: Which to choose and how to use. J Acquired Immun Def 1989;2:114-24.

10. Fischl MA, Richman DD, Grieco MH et al. The efficacy of azidothymidine (AZT) in the treatment of patients with AIDS and AIDS-related complex. N Engl J Med 1987;317:185-91.

11. Centers for Disease Control. Guidelines for prophylaxis against Pneumocystis carinii pneumonia for persons infected with human immunodeficiency virus. MMWR 1989;38:1-9.

12. Hooper C. AZT trials cut short. J NIH Res 1989;1:36.

13. Centers for Disease Control. Recommendations of the Immunizations Practices Advisory Committee: Pneumococcal Polysaccharide Vaccine. JAMA 1989;261:1265-67.

14. Centers for Disease Control. Tuberculosis and human immunodeficiency virus infection: Recommendations of the Advisory Committee for elimination of tuberculosis. MMWR 1989;38:236-50.

15. Masur H. Prevention and treatment of *Pneumocystis* pneumonia in AIDS patients. Update 3. In Mandell G, Douglas G, Bennett J Eds. Principles and Practice of Infectious Diseases. 1989:3-15.

16. Arno PS, Shenson D, Siegel NF et al. Economic and policy implications of early intervention in HIV disease. JAMA 1989;262:1493-98. ■

Prevention of Opportunistic Infections in Patients with HIV

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Improvements in antiretroviral therapy and prevention of opportunistic infections have significantly prolonged survival of patients with advanced HIV disease. Physicians caring for patients with HIV infection should adopt aggressive and early measures to prevent (not just treat) HIV-related opportunistic disease.

Infection with Human Immunodeficiency Virus (HIV) may result in symptomatic illness in the majority of infected individuals in the absence of therapy.[1] Opportunistic infections and malignancies are the clinical hallmarks that distinguish the various stages of HIV disease in infected persons. With advances in understanding the natural history of HIV infection,[1-3] it is now possible to predict the likelihood that an infected individual will develop opportunistic infections. Persons with CD-4+ lymphocyte counts below 200/mm^3, with a history of oral candidiasis or oral hairy leukoplakia, with constitutional symptoms, or who have had any prior opportunistic infection are at extremely high risk of developing an opportunistic infection, particularly *Pneumocystis carinii* pneumonia (PCP) in the subsequent 12 to 18 months. Thus, preventive therapy, in addition to antiretroviral treatment, can now be directed toward selected individuals with HIV infection to decrease the morbidity and mortality of HIV-associated immunosuppression.

Pneumocystis Carinii

P. carinii pneumonia is the most common AIDS-related opportunistic infection, occurring as the initial AIDS-defining infection in 60 percent of AIDS cases in the United States. It has been estimated that ultimately 80 percent of persons with AIDS in the US will develop PCP. Studies performed in San Francisco have helped delineate the impact of PCP on survival. Early in the AIDS epidemic, the mortality of first episodes of PCP was 20 to 30 percent and the mortality of subsequent episodes was approximately 45 percent. The median survival after a first episode of PCP prior to 1985 was 10 months.[4] Recently, however, survival following an episode of PCP has increased significantly, to a median survival of 18 months for persons diagnosed in 1987. The improving survival of persons with PCP is attributed to the advent of antiretroviral therapy and to prophylaxis for PCP.[5]

Prophylaxis for PCP is indicated in selected patients with HIV

infection. Prospective studies of HIV seropositive persons have demonstrated an increasing likelihood of PCP with declining levels of CD-4+ T lymphocytes. Data from the Multicenter AIDS Cohort Study (MACS) show that in HIV seropositive gay men with a CD-4+ count < 200 cells/mm^3, the one-year risk of PCP is 18 percent.[6] Approximately one-third of persons with < 200 CD-4+ cells/mm3 develop PCP within three years. The risk for progressing from HIV infection to PCP is increased by the presence of oral candidiasis, weight loss, fever, or other constitutional symptoms. The US Public Health Service recommends that any HIV seropositive person with < 200 CD-4+ cells/mm^3 receive propylaxis for PCP.[7]

Persons with AIDS-related Kaposi's sarcoma (KS) are also at increased risk of PCP. The risk of PCP in patients with KS is also greatly influenced by CD-4+ cell counts. Recently it has been noted that patients with an index AIDS diagnosis of KS have a shortened survival compared to KS patients diagnosed earlier in the AIDS epidemic.[4] This change in survival is primarily the result of lower CD-4+ counts and increased rates of progression to PCP and other AIDS-related opportunistic infections among patients diagnosed more recently. Finally, an increased risk of PCP is associated with other AIDS-related opportunistic diseases, such as cryptococcal infection, toxoplasmosis, candida esophagitis, and non-Hodgkin's lymphomas. Consequently, prophylaxis against PCP is recommended for all of the patient groups enumerated above.

PCP prophylaxis has been studied in populations other than HIV-infected persons, particularly in children with hematologic malignancies. Trimethoprim-sulfamethoxazole (TMP-SMX) has been shown effective in controlled clinical trials for preventing PCP in patients with hematologic malignancies in doses of 5 mg TMP/kg/day given daily or three days weekly.[8,9] Studies of PCP prophylaxis in patients with HIV infection have been less well organized and controlled. Fischl *et al.* studied TMP-SMX for PCP prophylaxis in patients with HIV-related Kaposi's sarcoma.[10] Patients were alternately assigned to TMP-SMX 160 mg/800 mg b.i.d. and leukovorin 5 mg/day or to no treatment. There were no cases of PCP in 30 subjects assigned to TMP-SMX while on treatment compared to 16 cases in the 30 patients not treated. Survival was significantly prolonged for patients able to tolerate therapy with TMP-SMX. If treatment was discontinued, however, the risk of PCP increased, with cases occurring in four of five patients discontinuing prophylaxis. Overall, 50 percent of patients assigned to TMP-SMX developed adverse reactions, 17 percent of which required discontinuation of treatment.

In a placebo-controlled trial of TMP-SMX for prevention of PCP in patients with HIV-related Kaposi's sarcoma, Kaplan and coworkers found no benefit of therapy because of a high rate of patient dropout; 12/14 patients randomized to TMP-SMX developed adverse reactions requiring discontinuation of drug.[11] This study did not use folinic acid in the active study arm. It is not known whether coadministration of folinic acid with TMP-SMX will reduce the incidence of adverse reactions. However, the primary toxicity of TMP-SMX in prophylaxis protocols is cutaneous eruptions. There is no evidence that folinic acid would reduce the likelihood of a dermatologic reaction to TMP-SMX.

Pentamidine isoethionate is an active agent against *P. carinii* and effective in primary therapy for active PCP. Prophylaxis with parenteral pentamidine was found to have apparent benefit in uncontrolled trials in patients with a history of an episode of PCP. Recent studies have focused on the use of aerosolized pentamidine to prevent PCP. Previous clinical and pathologic experience has shown that PCP is primarily an intra-alveolar process, with little tissue invasion and a very low rate of dissemination. Studies in immunocompromised mice and rats have demonstrated that aerosolized pentamidine effectively targets the lungs and cures PCP. A pilot study in humans with AIDS-related PCP showed efficacy of treatment with 600 mg/day aerosolized pentamidine via a Respirgard II nebulizer in treating the acute pneumonia.[12] On the basis of preliminary data from humans, prospective studies of aerosolized pentamidine prophylaxis have been conducted.

The most intensive and rigorous study of aerosolized pentamidine was carried out by the San Francisco County Community Consortium, a private organization of physicians treating AIDS and HIV patients in the San Francisco Bay area.[13] In this investigation, 408 patients with HIV infection (237 with a history of PCP) were randomized to receive aerosolized pentamidine via a Respigard II nebulizer at either 30 mg biweekly, 150 mg biweekly, or 300 mg monthly. At 18 months of follow-up the patients randomized to 300 mg monthly had significantly fewer episodes of PCP and had marginally improved survival. The efficacy of the higher dose, monthly prophylaxis was seen in all strata of patients, including those without prior episodes of PCP. Other nonconcurrent studies of aerosolized pentamidine at lower doses showed decreased relapse rates of PCP when compared to historical controls.[14] One uncontrolled study reported that patients on low-dose aerosol pentamidine who experienced relapses tended to have upper lobe disease, suggesting a dose-response effect within the lungs.[15] Recently, Girard and coworkers in Paris randomized AIDS patients who had had an episode of PCP to receive either zidovudine and nebulized pentamidine mesylate 4 mg/kg biweekly for one month then monthly or zidovudine alone.[16] The patients receiving aerosol pentamidine had a 85 percent decreased risk of a recurrence of PCP during 9 to 10 months of follow-up.

Use of aerosol pentamidine prophylaxis has been associated with several complications. Toxicity from aerosol pentamidine includes cough, wheezing, short-

ness of breath and bronchitis. Long-term changes in pulmonary function have not been demonstrated in patients on aerosol pentamidine. Systemic effects of aerosol pentamidine are unusual, but hypoglycemia, pancreatitis, neutropenia, and renal insufficiency have been noted in some patients receiving pentamidine by aerosol.

Extrapulmonary pneumocystosis has been reported in some patients on aerosol pentamidine in the absence of pulmonary disease.[17,18] This suggests that pentamidine levels are inadequate to prevent dissemination after aerosol administration. However, the incidence of disseminated pneumocystosis appears to be very low. In 150 patients receiving aerosol pentamidine at The Johns Hopkins Hospital HIV clinic for an average of more than 10 months there have been only three cases of extrapulmonary *P. carinii* infection. In the San Francisco Community Consortium study no cases of disseminated disease were reported in 18 months.

The Food and Drug Administration has licensed aerosol pentamidine for prevention of PCP in patients with HIV infection and < 200 CD-4+ cells/mm^3 or with a history of PCP. The recommended dose is 300 mg given by Respigard II nebulizer every four weeks. Alternative doses and delivery devices are under study by a number of investigators.

Other agents for the prevention of PCP have been less well studied in patients with HIV infection, but may play a role. Dapsone has been used at doses of 50-100 mg/day in uncontrolled studies and may be effective in preventing PCP.[19] Side effects include anemia, methemoglobinemia, rash, and in patients who are G-6-PD deficient, hemolysis. Pyrimethamine-sulfadoxine (Fansidar) given weekly also has been used in several series.[20] While this appears to be well tolerated and probably effective, Fansidar has been associated with fatal Stevens-Johnson syndrome in other patient groups and is not widely accepted by physicians. The long half-life of sulfadoxine is problematic when adverse reactions develop. Other potentially useful agents for preventing PCP include pyrimethamine alone, primaquine and clindamycin, trimetrexate, and eflornithine. No clinical trials of these agents for prophylaxis have been reported.

The Table shows the drugs and doses used for PCP and other prophylaxis in patients with HIV disease. Patients who can tolerate TMP-SMX should be treated with one DS tablet b.i.d. Patients unable to tolerate this should receive aerosol pentamidine 300 mg every four weeks. Alternatives can be substituted when neither TMP-SMX nor aerosol pentamidine is tolerated or feasible.

Mycobacteria

Disease caused by both typical and atypical mycobacteria are also common in patients with HIV infection. Unlike atypical mycobacterioses, however, tuberculosis in patients with HIV infection is treatable and preventable. Numerous studies have shown a strong association between tuberculosis and HIV. Case rates of tuberculosis in the United States stopped declining in 1985, and it is estimated that more than 15,000 excess cases of tuberculosis have occurred as a result of the HIV epidemic in the past five years.[21,22] Tuberculosis in HIV seropositive patients usually represents reactivation of remote infection with *Mycobacteruim tuberculosis*. Selwyn *et al.* studied IV drug users with positive tuberculin skin tests and found that 14 percent of HIV seropositive developed tuberculosis within two years, versus none of HIV seronegative subjects.[23] Detection of *M. tuberculosis* infection and institution of preventive chemotherapy, therefore, make tuberculosis a preventable disease in persons coinfected with it and HIV. Anergy to skin tests is common in persons with HIV infection and may impair the diagnosis of tuberculous infection. In patients with AIDS and tuberculosis, only up to 40 percent of patients have a significant reaction to PPD.[22] However, in HIV seropositive persons with tuberculosis who do not have other clinical manifestations of HIV disease, up to 80 percent may respond to PPD.[22] Thus, early detection of tuberculous infection with tuberculin skin testing is a feasible strategy for preventing tuberculosis in HIV seropositive persons.

Risk of coinfection with *M. tuberculosis* in HIV-infected persons is greatest in IV drug users, persons from countries where tuberculosis is endemic, prisoners, and members of ethnic minorities with a high prevalence of tuberculosis. Screening of newly diagnosed HIV seropositive patients should be performed with five tuberculin units of PPD, read 48 to 72 hours following injection. Induration ≥ 5 mm should be considered a positive reaction.

Preventive therapy for tuberculosis is recommended for all persons (regardless of whether they are documented converters) with HIV infection and a positive

Table.

Organisms	Therapy	Target Population
P. carinii	TMP-SMX DS BID Aerosol Pentamidine 300mg q 4 wks	< 200 CD-4+ cells Prior PCP Kaposi's sarcoma Other AIDS Dx
M. tuberculosis	INH 300 mg/day, 12 mos	HIV+, PPD+ or TB exposure
Strep. pneumoniae	Pneumococcal polysacharride vaccine TMP-SMX DS BID Penicillin VK 1 g/day	HIV+ adults PCP prophylaxis Prior pneumonia or or bacteremia
H. influenzae	*H. influenzae* type b polysacharride vaccine Ampicillin 1 g/day Cephradine 1 g/day	HIV+ children Prior serious infection
Herpes Simplex virus-2	Acyclovir 200-400 mg TID	Recurrent or complicated HSV
Cytomegalovirus	? Acyclovir 800 mg 5x/day	HIV+, CMV+ (experimental)

PPD regardless of age. The Centers for Disease Control and the American Thoracic Society recommend that such individuals receive isoniazid 10 mg/kg/day up to 300 mg/day for 12 months.[24] Clinical trials assessing the efficacy of this regimen have not been performed in HIV-infected populations. Studies in nonimmunocompromised populations with tuberculous infection have shown that six months of isoniazid propylaxis is as effective but less toxic than 12 months' treatment. However, because HIV infection is associated with progressive loss of cellular immunocompetence, some authorities argue that lifelong chemoprophylaxis is needed to prevent tuberculosis. Several trials are under way to address this issue. Alternatives to isoniazid, such as rifampin, are more expensive, potentially more toxic, and untested in any patient population.

Atypical mycobacterioses are usually late complications of HIV disease that result in morbidity but not mortality.[25,26] Treatment of *Mycobacterium avium* complex (MAC) infections is, at best, marginally effective. Prevention of MAC infections is desirable but not practical with current knowledge. Several clinical trials are presently being organized to assess the efficacy of chemoprophylaxis of MAC infection in patients with AIDS.

Bacteria

Bacterial infections are associated with B-cell defects in HIV seropositive persons.[27] Infections caused by encapsulated bacteria, particularly *Streptococcus pneumoniae* and *Haemophilus influenzae*, are commonly encountered. The incidence of bacterial infections appears to be greater in children, IV drug users, and persons from developing countries with HIV infection.[27,28] Enteric bacterial infections are more common in homosexual men and in residents of developing countries.

Preventive strategies for bacterial infections can be divided into three categories: hygienic measures, immunotherapy, and chemoprophylaxis. Hygienic measures include avoidance of potential sources of bacterial innoculation, such as impure food and water, contaminated animals, and oral fecal sexual contact. Moreover, cessation of cigarette smoking, while not technically speaking a hygienic measure, may reduce the risk of bacterial pulmonary infections.

Immunotherapy to prevent bacterial infections in persons with HIV infection includes passive and active immunization. Administration of IgG is recommended for all children with HIV infection. Suppression of B-cell response and proliferation to de novo antigen challenge places children at particular risk of bacterial diseases. Adults with HIV infection are at lower risk, presumably because of previous exposure to potentially pathogenic bacteria resulting in circulating antibodies that render some protection. Consequently, IgG is not recommended for HIV seropositive adults.

Active immunotherapy is potentially available for two important bacterial pathogens, *S. pneumoniae* and *H. influenzae* type b. Licensed vaccines for both pathogens are currently available. A recent study at The Johns Hopkins Hospital showed that 12/13 bacteremic pneumococcal infections in patients with HIV infection were caused by serotypes contained in the 23-valent pneumoccocal polysacharride vaccine.[29] Pneumococcal vaccine is recommended by the Advisory Committee on Immunization Practices for all HIV seropositive adults.[30] Several studies of pneumococcal vaccine in patients with HIV infection, however, suggest that response is impaired, particularly in patients with low CD-4+ lymphocyte counts.[31] Efficacy studies of pneumococcal vaccine have not been conducted in HIV-infected persons. Use of pneumococcal vaccine is probably most rational early in the course of HIV infection, when immunocompetence is relatively intact.

Antibiotic prophylaxis for bacterial infections in HIV patients may be appropriate in several settings. Patients receiving TMP-SMX as PCP prophylaxis also will be protected from infections due to encapsulated bacteria. Preventive chemotherapy specifically for bacterial pathogens is recommended for children with HIV infection. Secondary prophylaxis to prevent recurrent bacterial infections is indicated in patients who have experienced serious bacterial disease. Relapse rates for *H. influenzae* and *S. pneumoniae* range from 20 to 50 percent without prophylaxis. Patients who have had serious pneumococcal infections can be treated with penicillin V-K, 1 g/day or erythromycin .5-1 g/day to prevent recurrences. Patients who have experienced serious infections due to *H. influenzae* can be given ampicillin, amoxacillin, a first-generation cephalosporin, or rotating cycles of these agents for prophylaxis. The efficacy and toxicity of preventing bacterial infections in patients with HIV disease has not been studied in clinical trials.

Herpesviruses

Infections caused by reactivation of herpesviruses are extremely common in patients with HIV disease and can range from minor annoyances to life-threatening complications of AIDS.[32] Recurrent and chronic mucocutaneous Herpes simplex virus-2 infections constitute an AIDS-defining diagnosis and may occur in up to 20 percent of AIDS patients. Acute treatment with acyclovir 200 mg five times daily is generally effective in promoting healing of lesions and reduction of symptoms. As recurrences are common, preventive (suppressive) therapy with acyclovir 200-400 mg three to four times daily often is indicated. Patients who experience three or more outbreaks in a six-month period, or who have complications from HSV-2 infections, should receive prophylaxis.

Cytomegalovirus (CMV) infection is present in more than 90 percent of persons with sexually acquired HIV infection but causes disease (retinitis, enteritis,

pneumonitis, etc.) in only 10 to 20 percent of AIDS patients. Treatment of CMV disease is complicated and requires long-term administration of the relatively toxic agent ganciclovir. Consequently, prevention of CMV disease is desirable. While achievable serum concentrations of acyclovir are inadequate to treat acute CMV disease, high doses of the drug may be able to suppress reactivation of latent CMV infection. In renal transplant recipients, prophylactic administration of oral acyclovir 800-3200 mg/day significantly reduced the incidence of subsequent CMV disease compared to placebo-treated controls.[33] Clinical trials of preventing CMV disease in patients with HIV infection are under way. At present, routine use of acyclovir or ganciclovir for the prevention of CMV disease is not recommended for patients with HIV infection or AIDS.

Conclusions

Improvements in antiretroviral therapy and prevention of opportunistic infections have significantly prolonged survival of patients with advanced HIV disease. In particular, prevention of PCP appears to have had a dramatic impact on the quality and quantity of life for people with HIV. Physicians caring for patients with HIV infection should adopt aggressive and early measures to prevent, and not just treat, HIV-related opportunistic disease. Prophylaxis for PCP, tuberculosis, and pneumococcal infections is feasible and should be employed in selected patients. Additional studies of preventive therapy for other AIDS-related infections are urgently needed.

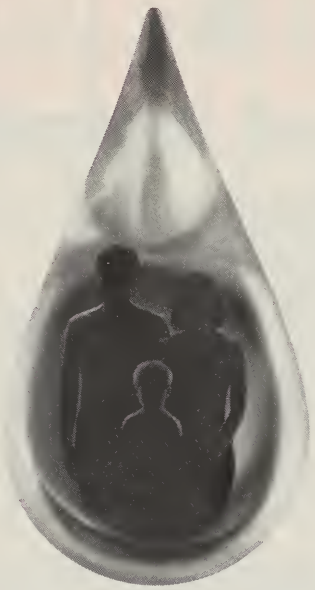
References

1. Moss AR, Bacchetti P, Osmond D et al. Seropositivity for HIV and the development of AIDS or ARC: Three year follow up of the San Francisco General Hospital Cohort. Br Med J 1988;296:745-50.
2. Polk BF, Fox R, Brookmeyer R et al. Predictors of the acquired immunodeficiency syndrome developing in a cohort of seropositive homosexual men. N Engl J Med 1987;316:61-66.
3. Moss AR, Bacchetti P. Natural history of HIV infection. AIDS 1989;3:55-61.
4. Bacchetti P, Osmond D, Chaisson RE et al. Patterns of survival in the acquired immunodeficiency syndrome. J Infect Dis 1988;157:1044-47.
5. Lemp GF, Pagne SF, Neal D et al. Survival trends for patients with AIDS. JAMA in press.
6. Phair JP, Munoz A, Detels R et al. Incidence of Pneumocystis carinii pneumonia (PCP) in men infected with human immunodeciency virus-1 (HIV-1). Abstract MBP 380, V Int Conf on AIDS, Montreal, June 4-9, 1989.
7. Guidelines for prophylaxis against *Pneumocystis carinii* pneumonia for persons infected with human immunodeficiency virus. MMWR 1989;36:S-5.
8. Hughes WT, Kuhn S, Chandhary S et al. Successful chemoprophylaxis for *Pneumocystis carinii* pneumonitis. N Engl J Med 1977;297:1419-26.
9. Hughes WT, Rivera GK, Schell MS et al. Successful intermittent chemoprophylaxis for *Pneumocystis carinii* pneumonitis. N Engl J Med 1987;316:1627-32.
10. Fischl MA, Dickinson GM, LaVoie L. Safety and efficacy of sulfamethoxazole and trimethoprim chemoprophylaxis for *Pneumocystis carinii* pneumonia in AIDS. JAMA 1988;259:1185-89.
11. Kaplan LD, Wong R, Wofsy C et al. Trimethoprim-sulfamethoxazole prophylaxis of *Pneumocystis carinii* pneumonia in AIDS. Abstracts of the II International Conference on AIDS 1986;1(abstr):53.
12. Montgomery AB, Debs RJ, Luce JM et al. Aerosolized pentamidine as sole therapy for *Pneumocystis carinii* pneumonia in patients with acquired immunodeficiency syndrome. Lancet 1987;2:480-83.
13. Leoung GS, Montgomery AB, Abrams DI et al. Aerosol Pentamidine for *Pneumocystis carinii* pneumonia. A randomized trial of 439 patients. The IV International Conference on AIDS 1988;1(abstr):419.
14. Golden JA, Chernoff D, Hollander H et al. Prevention of *Pneumocystis carinii* pneumonia by inhaled pentamidine. Lancet 1989;1:654-57.
15. Lowery S, Fallat R, Feigal DW et al. Changing patterns of *Pneumocystis carinii* pneumonia on pentamidine aerosol prophylaxis. Abstracts from the IV International Conference on AIDS 1988;1(abstr):419.
16. Girard P-M, Landman R, Gaudebout C et al. Prevention of *Pneumocystis carinii* pneumonia relapse by pentamidine aerosol in zidovudine-treated AIDS patients. Lancet 1989;1:1348-53.
17. Poblete RB, Rodriguez K, Foust RT et al. *Pneumocystis carinii* hepatitis in the acquired immunodeficiency syndrome (AIDS). Ann Int Med 1989;110:737-38.
18. Richie TR, Yamaguchi E, Virani NA, Quinn BD, Chaisson RE. Extrapulmonary pneumocystis infection. Ann Intern Med 1989;111:339-40.
19. Metroka CE, Braun N, Josefberg H et al. Successful chemoprophylaxis for *Pneumocystis carinii* pneumonia with dapsone in patients with AIDS and ARC. Abstracts from the IV International Conference on AIDS 1988;1(abstr):417.
20. Hardy D, Wolfe PR, Gottlieb MS et al. Long-term follow-up of Fansidar prophylaxis for *Pneumocystis carinii* pneumonia in patients with AIDS. Abstracts from the I International Conference on AIDS 1985;1(abstr):25.
21. Tuberculosis, final data - United States, 1986. MMWR 1986;36:817-20.
22. Chaisson RE, Slutkin G. Tuberculosis and HIV infection. J Infect Dis 1989;159:96-100.
23. Selwyn PA, Hartel D, Lewis VA et al. A prospective study of the risk of tuberculosis among intravenous drug users with human immunodeficiency virus infection. N Engl J Med 1989;320:545-50.
24. Diagnosis and management of mycobacterial infection and disease in persons with HTLV-III/LAV infection. MMWR 1986;35:448-52.
25. McDonell KB, Glassroth J. Mycobacterium avium complex and other nontuberculous mycobacteria in patients wtih HIV infection. Semin Respir Infect 1989;4:123-32.
26. Chaisson RE, Hopewell PC. Mycobacteria and AIDS mortality. Am Rev Respir Dis 1989;139:1-4.
27. Chaisson RE. Bacterial pneumonia in patients with human immunodeficiency virus infection. Semin Respir Infect 1989;4:133-38.
28. Koehler JE, Chaisson RE. Bacterial infections in acquired immunodeficiency syndrome. In Leoung G, Mills J, eds. Opportunistic Infections in Patients with Acquired Immunodeficiency Syndrome. Dekker, 1989.
29. Yamaguchi E, Charache P, Chaisson RE. Increasing incidence of pneumococcal infections in an inner city hospital, 1985-1989. Am Rev Respir Dis, in press.
30. Advisory Committee on Immunization Practices: Pneumococcal polysaccharide vaccine. MMWR 1989;38:64-76.
31. Huang K-L, Ruben FL, Rinaldo CR et al. Antibody responses after influenza and pneumococcal immunization in HIV-infected homosexual men. JAMA 1987;257:2047-50.
32. Drew WL, Buhles W, Erlich KS. Herpes virus infections (caused by cytomegalovirus, herpes simplex virus, varicella-zoster virus): How to use ganciclovir (DHPG) and acyclovir. Inf Dis Clin N Am 1988;2:495-502.
33. Balfour HH, Cliace BA, Stapleton JT et al. A randomized, placebo-controlled trial of oral acyclovir for the prevention of cytomegalovirus disease in recipients of renal allografts. N Engl J Med 1989;320:1381-87.

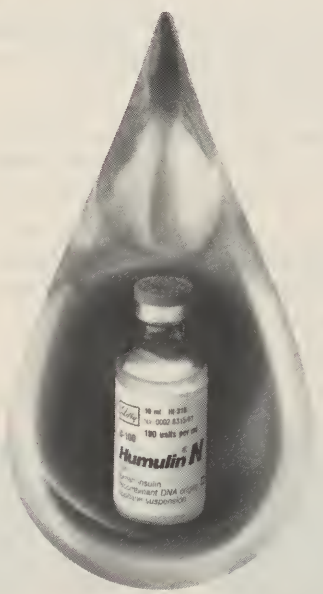
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The Role of Antiretroviral Therapy in Living Long and Living Well

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The dramatic increase in types of antiviral strategies and numbers of specific antiviral agents emerging since the early 1980s have changed the prognosis of HIV infection. A disease once viewed as an automatic death warrant is now in the process of becoming a chronic, potentially long-term treatable illness.

During the early years of the AIDS epidemic even after the causative agent of the disease, the human immunodeficiency virus (HIV-1) was first identified, the syndrome was thought to be almost universally fatal. With the release of encouraging data from the first successful clinical trial of an antiretroviral agent, AZT (Zidovudine) in 1986, it soon became apparent that there was a potential for controlling HIV infection and consequently delaying immunologic deterioration for some period of time. During the last few years there has been an explosion of research into new antiretroviral agents and strategies for containment of the virus. The more we have learned, the more our concepts about the pathogenesis and prognosis of this infection have changed. We summarize recent clinical data and describe a practical framework for understanding the use of and controversies surrounding antiretroviral therapy in the 1990s.

Zidovudine

Zidovudine (3'-azido-2',3'-dideoxythymidine) is a dideoxynucleoside analogue first developed as an antitumor drug in the early 1960s. During the early part of the AIDS epidemic, this agent as well as a number of others like it were tested and found to have antiretroviral activity, *in vitro*, and were thus considered candidates for *in vivo* testing.

Like all other members of this class of molecules studied, zidovudine acts to inhibit reverse transcriptase (RNA-dependent, DNA-polymerase), a key enzyme in the viral replication cycle. By competing with thymidine, zidovudine is incorporated into the elongating viral DNA polymer resulting in termination of the DNA chain since no other nucleosides can bind to the 3'-azido position on the molecule. As a result, incomplete copies of the viral genome are produced that cannot be incorporated into the host-cell genome. Without incorporation, the virus cannot replicate. The inhibitory effects of zidovudine are not specific for the viral polymerase, and some host-cell polymerases also are inhibited. This inhibition of host-cell enzymes may underlie one or more of the well-recognized toxicities attributed to this drug (see below).

To understand the rationale behind the potential indications and dosage recommendations for zidovudine, a few key pharmacokinetic facts must be considered. After oral administration, a little over 60 percent of the drug is absorbed, and the peak plasma level is reached somewhere between 30 and 90 minutes later. Though the plasma half life ($T_{1/2}$) of zidovudine is 1.1 hours, the intracellular half life is 3 hours, which may be an important factor in designing the optimal frequency of administration. Zidovudine penetrates the blood brain barrier and achieves CSF levels that are approximately 60 percent of the peak plasma level.

The drug is eliminated by the liver, following hepatic glucuronidation to form an apparently inactive product, and by renal excretion. Probenecid has been shown to retard both steps in the clearance process and thereby prolongs the plasma half life of zidovudine. Clinical trials employing the combination of probenecid and zidovudine are ongoing and may well conclude that concomitant administration of both agents will allow for less frequent dosing of zidovudine.

Clinical Experience (Table 1)

The first randomized controlled trial of zidovudine (begun in March 1986) included HIV-infected patients with advanced immunodeficiency manifested by previous *Pneumocystis carinii* pneumonia (PCP) or severe AIDS-related complex (ARC). The study was double blinded and patients were randomized to receive either zidovudine or placebo. When in September 1986 it was discovered that 19 of the 20 patients on protocol who had died were in the placebo arm, the trial was terminated and all patients in the control group were placed on zidovudine. In addition to demonstrating a higher probability of survival, patients on the treatment arm also experienced fewer opportunistic infections while receiving the drug. Based primarily on this study, zidovudine was approved by the Food and Drug Administration (FDA) for the management of HIV-infected patients with AIDS or ARC with a history of PCP or an absolute helper/inducer (CD-4+, T4+) T cell count of < 200 cells/mm^3.

Long-term followup of the original patient group confirmed that zidovudine acts to *delay*, not prevent the progression of HIV disease. A twelve-month followup of this cohort, most of whom were maintained on zidovudine, revealed an overall mortality of 10.3 percent. Although considerably better than the expected 55 percent mortality in untreated patients, these data demonstrate the incomplete nature of zidovudine's antiretroviral activity.

Table 1. Clinical Usees of Zidovudine

Clinical Situation	Zidovudine Beneficial
CD-4 count < 200	Yes
AIDS dementia complex	Yes
CD-4 200 - 500	Probably
CD-4 count > 500	Unknown
Post exposure prophylaxis	Unknown
Prevention of maternal-fetal transmission	Unknown*

* May be teratogenic.

Toxicity

Anemia has been the most frequent serious toxicity seen with zidovudine, having occurred in 24 percent of patients receiving the drug in the original trial. In fact, more recent experience suggests that up to 50 percent of patients receiving long-term therapy with zidovudine may experience clinically significant anemia with a significant subset of these requiring frequent red-cell transfusions. The anemia is a megaloblastic type, which does not appear to be secondary to folate or B_{12} deficiency although concomitant deficiencies of these vitamins can potentiate the severity of anemia. In addition, anemia is more likely to occur in patients with preexisting anemia from any cause and in patients with low CD-4 counts. Recent studies indicate that the anemia associated with zidovudine use may be ameliorated by the use of erythropoietin (EPO), available under a treatment IND mechanism (physicians can call 1-800-24-EPREX for more information). This agent appears to work especially well in individuals with low EPO levels. Neutropenia is a less frequent hematologic toxicity and occurs with greater frequency in patients receiving concomitant administration with other antiretroviral agents such as interferon alpha.

Other adverse reactions to zidovudine include a skeletal muscle myopathy that typically appears after several months of therapy and most frequently involves the proximal musculature with or without elevations in creatinine phosphokinase (CPK). Headaches, nausea, and vomiting are common side effects and may necessitate dosage reduction. Rashes, bluish nail discoloration, and transaminase elevations also have been reported with variable frequency.

Drug Resistance

There has been much concern focused on the issue of zidovudine resistance. Isolation of *in vitro* zidovudine-resistant HIV-1 strains has been reported from some patients. Patients from whom these strains have been isolated showed no signs of clinical deterioration or increase in retroviral activity. Thus, whether viral resistance is a significant factor in explaining declining clinical responsiveness to zidovudine is an open question since there is little substantive data. In light of other models of viral resistance such as acyclovir-resistant herpes simplex virus, it seems likely that clinically significant HIV-1 resistance to zidovudine will be a problem.

Indications for Use

1. Patients with CD-4 counts < 200 cells/mm^3 and/or a history of PCP This is the only current indication designated by the FDA.

2. AIDS dementia complex AIDS dementia complex

is one of the many well-described neurologic manifestations of HIV infection and is thought to be a consequence of direct viral infection of the central nervous system. Zidovudine has been found to arrest or even reverse the manifestations of this syndrome in both adults and children and should be used in this context.

3. Patients with CD-4 counts > 200 cells/mm³ In August 1989 the National Institute of Allergy and Infectious Diseases (NIAID) released preliminary results of two multicenter placebo controlled trials evaluating zidovudine therapy in patients with HIV-1 infection and CD-4 counts > 200 cells/mm³. In study #016, 713 symptomatic patients (for example, oral thrush, chronic rash, or intermittent diarrhea) with baseline CD-4 counts of 200-800 cells/mm³ were randomized to receive zidovudine at 200 mg every four hours (1200 mg/day) or placebo. Of the 51 patients who had reached a study endpoint defined by advanced ARC or AIDS by July 1989, 36 were in the placebo arm while 14 were in the zidovudine arm. Due to the distribution of endpoints, these differences were significant only for those patients with CD-4 counts of 200-500 cells/mm³. Based on these results, the study was halted and all persons on the placebo arm were offered zidovudine therapy.

In study #019, 3,210 asymptomatic patients with CD-4 counts of > 200 cells/mm³ were randomized to receive zidovudine at either 500 mg five times a day (1500 mg/day), 100 mg five times a day (500 mg/day), or placebo. By August 1989 the number of patients with CD-4 counts between 200 and 500 cells/mm³ receiving either dose of zidovudine who reached a study endpoint (advanced ARC, AIDS, or death) was roughly half that of the placebo group. Furthermore, there appeared to be no difference between the two dosage groups with respect to efficacy although the lower dose was considerably less toxic. Based on these results, the placebo arm for patients with < 500 CD-4 cells/mm³ was halted and all patients in the placebo group were offered zidovudine in a dose of 500 mg/day. The study was continued for the group with a CD-4 count of > 500 cells/mm³.

Based on preliminary data from these two important studies, it appears zidovudine may benefit HIV-1 infected patients with CD-4 counts between 200 and 500 cells/mm³ regardless of symptoms. It is unclear whether zidovudine will benefit patients with CD-4 counts > 500 cells/mm³. Data from these studies has not been published or otherwise made available for careful peer review. Consequently, the FDA has not yet revised its recommendations regarding the indications for zidovudine use (see above). Practicing physicians should be cautious in interpreting these data until more complete details are available. However, the general feeling among investigators at present is that zidovudine is of value for patients with HIV-1 infection and less than 500 CD-4 cells/mm³ and that low- dose therapy (100 mg five times a day) may be as good as standard dose therapy (200 mg every four hours).

4. Postexposure prophylaxis. Concern about occupational exposure to HIV has raised the question of whether zidovudine should be used as a prophylactic agent for needle-stick injuries or mucous membrane splashes with contaminated material. Certain related facts are well established. First, the risk of HIV seroconversion from an infected needle-stick injury probably depends on the depth of injury and volume of inoculate. If one considers all cases, the seroconversion rate is in the range of 0.3 to 0.5 percent per injury, yet the risk may be substantially higher from a deep, freshly drawn, high-volume inoculation. Second, data from animal retroviral models suggest that infection can be averted if zidovudine is given immediately after exposure. Based on these data, some centers including the Occupational Health Service in the Clinical Center at NIH offer employees the option of taking zidovudine, 200 mg every four hours for 6 weeks, after a needle-stick injury based on the perceived risk of seroconversion judged on a case-by-case basis. Due to the low rate of seroconversion, demonstrating the efficacy of such a regimen would require a large randomized placebo controlled trial that would be all but impossible to implement. Consequently, we may never know whether post-exposure prophylaxis with zidovudine or any other antiretroviral agent is indicated. However, our practice is to advise the use of such prophylactic therapy following significant exposures.

5. Prevention of maternal-fetal transmission The prenatal treatment of HIV-1 infected mothers with zidovudine to prevent fetal infection remains a provocative issue. Animal models suggest that treatment in the early stages of pregnancy may prevent fetal transmission. However, due to the teratogenic potential of nucleoside analogues, the use of zidovudine in this setting is neither approved nor recommended at this time.

Optimal Dosing of Zidovudine

The current recommendation for initial dosing of zidovudine calls for 200 mg given orally every four hours (1200 mg/day). Yet as we have seen, the frequency and severity of adverse reactions with such a dose is substantial. Also, since many patients suffer from sleeping disorders as a consequence of their infection, their compliance with the early morning dose is variable since it requires waking up to take the drug. A number of studies are under way to decide whether less drug, less frequently is as good. Preliminary results from study #019 described above suggest that at least in patients with 200-500 CD-4 cells/mm³, 500 mg/day is equivalent to 1500 mg/day in efficacy and is also less toxic. In another ongoing multicenter trial of zidovudine in patients with CD-4 counts < 200 cells/mm³ (study #002), preliminary results suggest that 100 mg every four hours (600 mg/day) is as efficacious as 250 mg every four hours (1500 mg/day). Again, none of these data have been made available for peer review. Therefore at this point, no firm conclusions can be drawn as to whether less drug should

be prescribed. Formal judgments by the FDA on these issues should be forthcoming.

Interferon Alpha

The interferons are a family of proteins which have antiviral, antiproliferative, and immunomodulatory properties. Interferon alpha consists of at least 14 different subtypes and has been studied as both an antitumor and antiviral agent. As an antitumor agent, even before the AIDS epidemic, interferon alpha was found to be effective as a systemic agent for the treatment of hairy cell leukemia for which it is now licensed by the FDA. As an antiviral agent, it is currently licensed for intralesional treatment of genital warts (condylomata acuminata) caused by a papillomavirus.

Interferon alpha was tested early in the AIDS epidemic as a treatment for Kaposi's sarcoma (KS) and as a treatment for the underlying retroviral infection itself. It has been shown to be effective as a treatment for KS, and its effectiveness is directly proportional to the degree of remaining immunologic function. It has been demonstrated that patients with KS and a CD-4 count of > 600 cells/mm^3 have an 80 percent response rate to interferon alpha therapy as determined by partial or complete resolution of tumor nodules. In contrast, patients with KS and CD-4 counts of < 150 cells/mm^3 have a response rate of ≤ 10 percent. Those patients with CD-4 counts between 150 and 600/mm^3 have an intermediate response rate that correlates directly with the CD-4 count. On the basis of these data, the FDA recently approved interferon alpha for the treatment of KS in patients with HIV infection.

The antiretroviral action of interferon alpha involves a different mechanism from that of the nucleoside analogues and as a consequence both agents may work together synergistically. Interferon alpha inhibits viral replication later in the cycle by preventing assembly and subsequent budding off of whole virions. In two separate studies, interferon alpha was found to significantly reduce indices of viral replication such as p24 antigen level. As in the case of activity against KS, this activity was most pronounced in those patients with the higher CD-4 counts. The ultimate decision regarding approval of interferon alpha as an antiretroviral agent independent of its activity against HIV-related KS awaits further results from controlled trials of this agent alone and in combination with zidovudine that are ongoing.

The optimal dose and frequency of administration of interferon alpha for the treatment of HIV-related KS is yet to be determined. We have aimed toward a goal of administering 35 million units daily by subcutaneous injection. However, due to substantial dose-related toxicity, most patients have not tolerated doses that high. Fortunately, doses even as low as 3 million units per day seem to have some antitumor activity. In practice, a starting dose of 1 million units daily is judicious, followed by a doubling every two weeks until the maximally tolerated dose is reached. Careful education and training is vital to assure that the patient can successfully administer the drug by subcutaneous injection.

The most frequent adverse reaction seen with interferon alpha is a flu-like syndrome characterized by low grade fevers, malaise, and myalgias that can be severely debilitating. Neutropenia is seen with lesser frequency and is often potentiated by concomitant use of zidovudine. Both types of adverse reactions respond to dose reduction.

Other Important Dideoxynucleoside Analogues

Dideoxycitidine (ddC) ddC has been found to be a more potent inhibitor of reverse transcriptase *in vitro* than is zidovudine. It has a similar plasma $T_{1/2}$ but penetrates cerebospinal fluid less well than zidovudine, reaching levels only 20 percent of peak plasma levels. This may be important in considering potential uses for the drug. The results of the initial clinical studies with ddC were very optimistic. ddC was shown to decrease p24 antigen levels, increase CD-4 counts, and improve other measures of cellular immune function. Unfortunately, drug toxicity has somewhat limited its use. After 8 to 14 weeks on ddC, a substantial number of patients developed a painful sensory-motor peripheral neuropathy, the severity of which seemed to be dose dependent. Some patients receiving the highest doses of drug still had moderate symptoms even up to a year after the drug was discontinued. Nevertheless, this important antiretroviral agent may yet have a place in the treatment of HIV infection. Studies evaluating the combined use of ddC and zidovudine are ongoing in which patients receive alternating drug therapy in seven-day cycles. It is hoped that not only will such a regimen prove to be less toxic but also may prevent the emergence of drug resistance in a given individual. This drug is not available outside of a formal research setting at this time.

Dideoxyinosine (ddI) ddI has been the most recent dideoxynucleoside analogue to show promise as an antiretroviral agent due to its apparent antiviral activity and relatively low toxicity. Although the plasma $T_{1/2}$ of ddI is only 35 minutes, its intracellular $T_{1/2}$ is in the range of 12 to 24 hours. Consequently, it is thought that twice daily oral dosing may be adequate. Since the drug is acid-sensitive, concomitant administration with antacids prevents inactivation by gastric acid.

In the initial phase I trial of ddI, approximately 90 patients with either AIDS or ARC were treated with doses ranging from 0.4 mg/kg to 25.6 mg/kg twice daily. Increases in CD-4 count, decreases in p24 antigen level, or both were seen in greater than 50 percent of the evaluable patient group. A beneficial clinical response was seen in 60 percent of the patients, characterized by significant weight gain and/or reduction in constitutional signs and symptoms.

So far, the major dose-limiting toxicity of ddI has been a painful sensory neuropathy that has developed in 14 patients, 8 to 12 weeks after initiating treatment. Nerve conduction studies on these patients have not shown any significant abnormalities. In all cases,

symptoms resolved within 1 to 2 weeks of discontinuation of the drug. Symptomatic pancreatitis in 5 patients and asymptomatic amylase elevation in 2 patients have been reported beginning 8 to 19 weeks after initiating therapy, necessitating discontinuation of drug. Other adverse reactions have included transaminase elevations, increases in uric acid, and occasional decreases in neutrophils and platelets. Whether one or more of these toxicities will become a major problem once a therapeutic dose range has been established remains to be determined.

ddI is now available to patients by several different mechanisms (Table 2). Three phase II clinical trials enrolling patients with AIDS or advanced ARC are being conducted through the nationwide network of AIDS Clinical Trials Group (ACTG) units administered by NIAID. In addition, under a Treatment IND, ddI is available free of charge to practicing physicians with patients who have experienced significant toxicity to zidovudine. The program is being administered and funded by Bristol-Myers, maker of the drug. Patients are enrolled and monitored for toxicity by their physicians. Finally, ddI is available, also free of charge, through an open safety protocol for patients whose disease has progressed despite zidovudine therapy. Physicians, patients, and others interested in the ACTG clinical trials can call 1-800-TRIALS-A from 9 AM to 7 PM eastern time, Monday through Friday. Physicians interested in details of the Treatment IND and open safety protocol can call Bristol-Myers toll-free at 1-800-662-7999 daily from 8 AM to 8 PM eastern time.

Table 2. Current ddI Trials

Clinical Trial	Patient Group
Trial #116	Double blind study of AZT vs. ddI
Trial #117	ddI vs. AZT in patients on AZT > 1 year
Trial #118	ddI for AZT-intolerant patients
Treatment IND	Open drug for patients with dose-limiting toxicity to AZT
Open Safety Protocol	Open drug for patients with disease progression despite AZT

Other Antiretroviral Agents

Several other antiretroviral agents are in various stages of clinical investigation and worthy of mention. AzdU (3'-Azido-2',3'-dideoxyuridine) is another nucleoside analogue with considerable antiretroviral activity, *in vitro*. Phase I studies have so far shown the drug to be well tolerated in the lowest dose ranges. Efficacy data is not yet available. Foscarnet (phosphonoformate) is a pyrophosphate analogue shown to have significant clinical activity against herpesviruses including CMV. It is also an inhibitor of reverse transcriptase. *In vitro* studies and uncontrolled clinical data have shown it to have activity against HIV. Soluble CD-4, whether alone or as an IgG conjugate, has shown promise as an agent that, *in vitro*, binds to the viral envelope and prevents viral attachment to target cells. Clinical trials employing soluble CD-4 are under way.

Summary

We have seen a dramatic increase in the types of antiviral strategies and numbers of specific antiviral agents that have emerged since the early 1980s when infection with the human immunodeficiency virus was first recognized. At the moment, zidovudine is the only drug approved by the FDA for treatment of HIV infection, and its indication is limited only to patients in the most advanced stages of immunodeficiency. Although zidovudine cannot "cure" HIV infection, it can significantly delay the seemingly inexorable course of immune system decline and buy some meaningful time for most HIV-1 infected patients, whether or not they have developed immunodeficiency.

Other agents such as interferon alpha and the dideoxynucleoside analogues, ddI and ddC, have also shown promise as antiretroviral agents, and it is hoped they will be proved, in the near future, capable of delaying the progression of immune system destruction by HIV-1. Other related treatment modalities such as the use of PCP prophylactic regimens also have succeeded in decreasing the incidence of opportunistic infections and thereby improving survival. It is likely that future strategies will involve the use of alternating, multidrug regimens both to reduce selective pressure for the development of drug resistance and to minimize the toxicity of single-agent therapy. The sum of these developments has been to change the prognosis of HIV infection. A disease once viewed as an automatic death warrant is now in the process of becoming a chronic, potentially long-term treatable illness.

Bibliography

DeWit R, Schattenkerk JKME, Boucher CAB et al. Clinical and virological effects of high-dose recombinant interferon alpha in disseminated AIDS-related Kaposi's sarcoma. Lancet 1988;1:1214-17.

Fischl MA, Richman DD, Grieco MH et al. The efficacy of azidothymidine (AZT) in the treatment of patients with AIDS and AIDS-related complex. N Engl J Med 1987;317:185-91.

Henderson DK, Gerberding JL. Prophylactic zidovudine after occupational exposure to the human immunodeficiency virus: An interim analysis. J Infect Dis 1989;160:321-27.

Kovacs JA, Deyton L, Davey R et al. Combined zidovudine and interferon alpha therapy in patients with Kaposi sarcoma and the Acquired Immunodeficiency Syndrome (AIDS). Ann Intern Med 1989;111:280-87.

Lane HC, Kovacs JA, Feinberg J et al. Anti-retroviral effects of interferon alpha in AIDS-associated Kaposi's sarcoma. Lancet 1988;2:1218-22.

Richman DD, Fischl MA, Grieco MH et al. The toxicity of azidothymidine (AZT) in the treatment of patients with AIDS and AIDS-related complex. N Engl J Med 1987;317:192-97.

Yarchoan R, Mitsuya H, Myers CE, Broder S. Clinical pharmacology of 3'-azido-2',3'-dideoxythymidine (zidovudine) and related dideoxynucleosides. N Engl J Med 1989;321:726-38.

Yarchoan R, Mitsuya H, Thomas RV, et. al. In vivo activity against HIV and favorable toxicity profile of 2',3'-dideoxyinosine. Science 1989;245:412-15.

Yarchoan R, Perno CF, Thomas RV et al. Phase I studies of 2',3'-dideoxycytidine in severe human immunodeficiency virus infection as a single agent and alternating with zidovudine (AZT). Lancet 1988;1:76-81.

Yarchoan R, Thomas RV, Grafman J et al. Long-term administration of 3'-azido-2',3'-dideoxythymidine to patients with AIDS-related neurological disease. Ann Neurol 1988;23: Suppl: S82-S87.

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Pediatric AIDS Care in Maryland

John P. Johnson MD

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The complexities of care for persons at risk for or infected with human immunodeficiency virus (HIV) are no greater for any other population than for children.[1-6] Their unusual medical, social, and public health considerations have demanded a separate system of care from that for adults.[7]

The needs of children at risk for AIDS and the development of a new system of care in response to their needs involves the collaborative efforts of the Department of Health and Mental Hygiene, AIDS Administration, the city of Baltimore, the medical centers, and a variety of social service organizations.

The AIDS epidemic is having a significant impact on the pediatric population in the United States. Conditions related to infection with HIV are currently the ninth leading cause of death among children 1 to 4 years old, and the seventh leading cause in young people between the ages of 15 and 24. (Secretary, US Department of Health and Human Services [HHS] Work Group on Pediatric Infection and Disease, 1988).[8] If current trends continue, conditions related to HIV infection will become one of the five leading causes of death among these groups in the next 3 to 4 years.

As of October 31, 1989, more than 112,200 persons (2,148 in Maryland as of November 30) were reported as having met the Centers for Disease Control (CDC) AIDS case criteria in the US.[9] Of these cases, 1,908 were infants and children under age of 13, while 439 were adolescents between the ages of 13 to 19 years old. Within Maryland, 48 children and 11 adolescents have been reported as meeting the CDC AIDS case definition.[10] Maryland ranks within the top ten states in reported pediatric and female AIDS cases.

CDC AIDS case counts significantly underrepresent the number of children infected with HIV, however, because these numbers do not include infected children who are either asymptomatic or have HIV-related conditions falling outside the CDC AIDS case criteria. Using case-estimation methods, Maryland Department of Health and Mental Hygiene staff estimate that by 1993 at least 643 children will be infected perinatally with HIV.

Currently, over 300 children have been identified as HIV at-risk or infected in Baltimore. The University of Maryland is following over 200 children, 60 of whom have AIDS or HIV-related diseases. Johns Hopkins Hospital follows approximately 100 children, 40 of whom have HIV mediated disease. Approximately half these

children fall into the CDC classification of indeterminate infection, that is, born to women with HIV infection. Approximately one-third of those at-risk children will be HIV infected. Of these infected children, approximately half will develop AIDS in the first year of life, although the majority will have symptoms of HIV infection.[11]

All these children, whether or not infected, may suffer the many psychosocial consequences associated with HIV infection in families: poor housing and poor access to services; lack of daycare, foster care, and community support/integration. Issues of death and dying are overlaid with socioeconomic obstacles and psychosocial burdens rendering these families marginally able to cope with the demands of the child's illness. Such stress produces recidivism of at-risk behavior. To cope with the community impact of HIV infection in children, it is essential to develop a system of care that is responsive and sensitive to the needs of the family in its environment.

Existing Resources

The Baltimore Metropolitan area and the state of Maryland have a wealth of medical and community resources for caring for HIV-infected patients. Additionally, a variety of programs to address areas of special concerns are under development.

Maryland Department of Health and Mental Hygiene The responsibility of the state in HIV disease derives from Health General Article §18-101 and §18-102 requiring the Secretary to investigate the causes and prevent the spread of communicable diseases. HIV infection is covered by both the State Medicaid Program (Title XIX) and the State Crippled Children's Program (Title V).

The Assistant Directorate for AIDS Health Services of the Maryland Department of Health and Mental Hygiene is responsible for planning, developing, and implementing statewide programs for the identification, evaluation, treatment, and support of individuals and families affected by the epidemic of HIV. The Assistant Directorate for Health Services is organized into four divisions to address these mandates: Counseling and Testing Services (CATS); Patient Care Services; Planning, Evaluation, and Resources Development; and Provider Education and Training.

State services for HIV-infected individuals include counseling and testing sites, seropositive follow-up clinics, AIDS Diagnostic Evaluation Units (DEU, the University of Maryland for pediatric patients and the Johns Hopkins University for adults) and patient and family assistance programs.

Medical Services

University of Maryland The University of Maryland Department of Pediatrics has established as part of its Pediatric Diagnostic and Evaluation Unit services two clinics for the pediatric population, the PACE and SPICE clinics.

The Special Parent and Infant Care and Enrichment (SPICE) clinic is a comprehensive, primary care clinic that follows infants born to mothers who are HIV seropositive. The majority of these mothers are identified through obstetric screening. Infants are followed in the SPICE clinic until there is evidence of immune dysfunction or until they are considered not infected.

The Pediatric AIDS Care and Evaluation (PACE) clinic provides the specialized care necessary for children who have developed HIV-mediated disease, AIDS-Related Complex (ARC), or AIDS. Once it is determined that they are infected or are developing symptoms of ARC or AIDS, children may be referred to PACE from either the SPICE clinic or from the community. Children to be evaluated for the possibility of HIV infection or other immunodeficiency disease also are seen in the PACE clinic.

Children receive appropriate evaluation and treatment for immunologic, infectious, neurologic, and other manifestations of disease. While the clinic provides both a research and clinical component, infants referred to the clinic do not have to participate in a research protocol. The multidisciplinary staff consists of specialists in Immunology, Developmental Pediatrics, Neurology, and Infectious Diseases. An expert nursing staff consisting of two nurse practitioners and two nurses provide home evaluations and treatments. A social services staff is available to parents and family to assist in providing counseling services, including placement, housing, and benefits. This staff is also a resource for community practitioners and organizations for advice regarding care and available services.

Johns Hopkins Hospital "Intensive Primary Care" (IPC) Program for Infants Infants are identified as at-risk for HIV infection while the mother is on The Johns Hopkins Hospital postpartum floor. The mother meets the visiting nurse and the social worker of the IPC and receives a two-week appointment for the infant to attend the clinic where the infant is assigned to a Pediatric Nurse Practitioner (PNP). The PNP provides primary care to the infant over the 15-month study period.

At each clinic visit the social worker tries to meet with the family for support and to provide resources. Home visits are provided to the infants by a PNP and the social worker. The purpose of the home visits are threefold:

1. They allow assessment of the infant for symptoms of infections, poor nutrition, developmental status, and social risk factors.
2. They provide time to teach parents basic child care and infection control measures.
3. They provide another time for support as well as "keeping track" of the families.

Children may be referred to the Infectious Disease Clinic if they develop symptoms of HIV infection, and they can be followed by a multidisciplinary staff. Appropriate assessments and treatments are provided.

Home Care

Mt. Washington Pediatric Hospital, Inc. and Home Health Agency Mt. Washington Home Health Agency provides a variety of services for children with AIDS and other conditions related to HIV infection. Pediatric registered nurses provide home-based monitoring assessment, parent training, and skilled intervention to infants and children. Frequency of service depends on the physician's orders. A nurse may visit as frequently as every day or as infrequently as once each week.

Home Health Aides provide nonskilled personal care and other health-related services under the direct supervision of the agency registered nurse. Service may be provided for three hours, five days per week unless preauthorization for greater service is received through Medicaid.

Home-based rehabilitation services are available to those children who are not receiving these services from school-based programs or who have developmental delay or handicapping conditions.

Developmental Disability Services

PACT Parents and Children Together is a nonprofit, private program committed to providing innovative, quality programs for children (ages birth to three years) who have suspected or identified developmental delays. PACT offers comprehensive evaluation and treatment services to children, and support services to their families. These services include those of a consulting developmental pediatrician, a physical therapist, an occupational therapist, a speech-language pathologist, a public health nurse, a social worker, and a child development specialist. Services are individualized according to the unique needs of each child and his/her family.

Kennedy Family Support Services The Family Centered Planning Program at the Kennedy Institute is a home and community centered program for families who have children who are developmentally disabled, between 0 and 21 years of age, living at home in Baltimore City, and medically eligible for Supplemental Security Income (SSI).

The program consists of professionals who will assist the family in utilizing a variety of available resources and support including respite care, physicians, financial assistance, special equipment, educational plans, and recreational programs.

With the goal assisting families in planning the most appropriate services for their child the program will identify service and resource needs, establish a community team for planning family support services, assure that the family receives appropriately delivered services, disseminate information that will facilitate public awareness, identify funding sources when emergency services are required, and assist the family and child to plan for future self-advocacy and coordination. Parents voluntarily participate with program staff when help is needed with skill development, decision making, problem solving, service arrangement, and medical treatment.

Technology Dependent Care The Coordinating Center for Home and Community Care (CCHCC) has developed a case-management model that includes a multidisciplinary coordination system that facilitates the discharge of medically fragile infants/children with technology assistance from hospital to home. This comprehensive program assures quality and continuity of coordinated services as well as monitoring of provision and cost.

The Maryland Model Waiver was designed to enable children who otherwise would remain hospitalized (at substantial cost to Medicaid) to move home on Medicaid Waiver funds.

Children have been going home from hospitals with services funded through the Waiver since October 1985. The Maryland Model Waiver System has been recognized nationally as a unique quality assured cost efficient program. The Maryland Medical Assistance program, Children's Medical Services, and the Coordinating Center have worked cooperatively to put this comprehensive system in place in Maryland.

Housing

Project Home The AIDS Project of Project Home operates out of the CARE Program of Adult and Family Services of the Department of Human Resources (DHR). This program provides funding to clients through Public Assistance to Adults. It enables them to pay for their housing and personal care needs in licensed foster homes (one to three occupants), supervised apartments (one to three occupants), or group homes (four to eight occupants). It is their intention to provide housing for families of children affected by HIV infection. In each setting, there must be a certified provider who has been approved and trained to provide personal care as needed and supervision to persons with AIDS or other conditions related to AIDS. In addition to room, board, and personal care, this program also provides case management and a medicaid card to each client.

Foster Care The Baltimore City Department of Social Services has been placing at-risk children, children who are HIV positive, and children with symptoms in standard foster homes. However, these foster parents need additional training to care for medically fragile children who develop AIDS. The need for additional homes and alternative community placements through the Department of Social Services is growing.

The Kennedy Specialized Foster Care Program trains foster parents to meet the special medical needs of these children. The Baltimore Association for

Retarded Citizens also is available to provide short-term foster care.

Respite Care The YWCA of Baltimore provides the respite care for children up to five years old who, for medical, legal, or personal reasons, need emergency shelter.

Daycare - Head Start

The Urban Services/Head Start Program has developed a program to provide comprehensive services to HIV/AIDS-infected children birth to 5 years of age. Training has been provided to all staff and parents and all 22 sites are prepared to accept infected children. All components of Head Start are available to this population. They include education, parent involvement, social services, and health services to the handicapped. Children are integrated into the centers based on age and medical status. Referrals are made if Head Start is an inappropriate placement. A separate classroom for infected children with unique needs is under development.

For HIV-infected children and families, a team develops family needs assessment and an individual family program plan. Group or individual counseling to families, specific staff training, and case coordination are also available. A Head Start AIDS Advisory Board serves as a vehicle to network services for families.

Counseling And Prevention

Health Education Resources Organization (HERO) HERO is one of the oldest and best established community-based AIDS organizations in the country. Programs include both professional and at-risk education and counseling and patient services delivery including case management and a buddy system. A collaborative effort among the Maryland State and Baltimore City Drug Abuse Programs and HERO reaches IV drug users who are not in treatment and their sexual partners. HERO recruits recovered addicts and extensively trains them to bring the AIDS prevention message to those areas with the most need. HERO provides a variety of patient services including group therapy, "buddies," an information repository, and financial assistance.

HERO pioneered AIDS outreach education among minorities. HERO's Minority Outreach Program works closely with black leaders to implement educational programs. HERO develops special educational pamphlets and posters to reach minorities. HERO cultivates minority volunteers to continue outreach education and enjoys strong support from the minority media in developing on-going messages targeted at the minority community. HERO (as well as Earth Tide) intends to provide services to families of HIV-infected children.

EarthTide EarthTide is a minority community based AIDS organization that targets adult minority females who are at-risk for HIV infection and transmission. The project is designed to provide women with alternatives to high-risk behaviors and to address personally and socially relevant issues affecting minority women. Safer sex parties and discussion strategies are used to present and communicate HIV risk-reduction information.

The IVD Outreach Project targets adult IVDAs who are recovering and possibly at-risk for HIV infection and transmission. The project is designed to present to recovering IVDAs alternatives to high-risk sexual behaviors and to provide support for psychosocial adjustments to the recovery stage of their addiction. Small group discussion and group strategies are used to communicate information to the targeted population.

Continued Love Continued Love is also a minority community based AIDS organization whose intent is to fill gaps in services to HIV-infected infants and children. Community education/prevention efforts have dominated the last years' effort. Plans to open a daycare center for HIV-infected children in collaboration with Head Start are complete.

Legal Services

The University of Maryland School of Law AIDS Legal Clinic The AIDS Legal Clinic is the first of its kind in the country to confront difficult issues facing lawyers today. The clinic also provides students and professors the unique opportunity to collaborate with physicians and social workers in addressing the myriad legal problems raised by the AIDS epidemic. The AIDS Legal Clinic has begun working with the Pediatric AIDS Clinic at the University Hospital and has developed expertise in the special issues pertinent to children with HIV infection.

MAARETC

The Mid-Atlantic AIDS Education and Training Center (MAARETC) is one of 13 multidisciplinary centers nationwide funded by the Health Resources Services Administration of the Public Health Service. MAARETC, headquartered at the University of Maryland at Baltimore, coordinates activities through area resource centers in Delaware, District of Columbia, Maryland, Virginia and West Virginia. Working collaboratively with health service delivery agencies, professional organizations and educational institutions, the area resource center provide AIDS/HIV training for health care professionals. Curricula cover all aspects of the HIV/AIDS epidemic, including medical, dental, pediatric, psychiatric, psychosocial, social policy, workplace issues, and ethical and legal issues. Enhancement of primary care provider abilities is a special concern.

The PACC Program

The State of Maryland, Department of Health and

Mental Hygiene (AIDS Administration), the city of Baltimore Head Start program, the school-based program, the medical institutions, and the social service organizations are collaborating in the development of a system to coordinate, monitor, and improve the provision of services and care to HIV-infected children.

The central goal of this Pediatric AIDS Care Consortium (PACC) will be the establishment and support of a widespread coordinated community based care system accessible to all practitioners for families affected by HIV. The underlying principle behind this effort is reliance on existing reimbursement mechanisms as being sufficient to meet all the needs of these children, while recognizing the immediate need for establishing a consistent coordinated system that is effective in its delivery of services.

With the newly available reimbursement of case-management services by the state's Medicaid Program, it is anticipated that the majority of at-risk children will soon receive these services. Case management may be done by any licensed care provider (physician, nurse, social worker) willing to coordinate and monitor provision of medical and social services to an infected child in the coummunity.

The PACC Team will establish case-management protocols for agencies and individuals willing to provide pediatric case management in the Baltimore Metropolitan Area and, as needed, to other areas of Maryland. The Steering Committee of PACC will include new service providers as they become established in the Baltimore Metropolitan Area. Each service provider will have representation on the Steering Committee, whose goals will be to

1. discuss changes in the epidemiology of the AIDS epidemic in the Baltimore Metropolitan Area
2. identify current resources and the need for new or expanded services in the Baltimore area
3. facilitate mechanisms to provide these services through an advocacy network
4. review the progress of the provision of service
5. act as a central clearinghouse for practitioners requiring information or support

Establishing a coordinated system will require an agreement on approach and provision of education to potential case managers. Kennedy Family Support Services recently has been awarded an HHS Special regional area network grant to provide education for a family oriented case management system. Agencies that wish to provide case management service to these children should contact the University of Maryland Pediatric AIDS Program or DHMH, AIDS Administration, for support in getting established.

The other area of professional education that will be the responsibility of the PACC team is education to pediatricians, obstetricians, and social service agencies following at-risk populations to help them identify risk factors for HIV infection and to provide training regarding counseling, testing, and medical follow-up. One great obstacle to this process is primary care providers' lack of confidence to care for such patients. The Mid-Atlantic Regional AIDS Education and Training Center will collaborate by providing educational programs to groups or individual care providers.

By establishing a coordinated system of education and services for children with HIV infection (which also utilizes newly developed reimbursement programs), it will be possible to increase both awareness of and security in identifying and caring for the children by primary practitioners. The promise of newer therapeutic modalities for treatment and perhaps even prevention of perinatally acquired HIV infection can be realized only if primary practitioners are willing to recognize that HIV infection is a common medical and social issue demanding our utmost commitment. Practitioners and service organizations are urged to call the University of Maryland PACE Unit (301-328-8220) or the Marylands DHMH AIDS Administration (301-225-1054) for more information.

References

1. Scott GB, Fischel MA, Klimas N et al. Immunodeficiency syndrome in children. Evidence for both symptomatic and asymptomatic carriers. JAMA 1985;253:3[illegible]3-66.
2. Pawha S, Kaplan M, Fikrig S et al. Spectrum of human T cell lymphotropic virus type III infection in children. JAMA 1986;225:2299-2305.
3. Rogers MF. AHDS in children: A review of the clinical, epidemiologic and public health aspects. Pediatr Infect Dis 1985;4:220-36.
4. Scott GB, Buck BE, Leterman JG, Bloom FL, Parks WP. Acquired immunodeficiency syndrome in infants. N Engl J Med 1984;310:76-81.
5. Belman AL, Diamond G, Dickson P. Pediatric acquired immunodeficiency syndrome: Neurologic syndromes. Am J Dis Child 1988;142:29-35.
6. Epstein L, Gouldsmit J, Paul D et al. Expressions of human immunodeficiensy virus in cerebrospinal fluid of children with progressive encephalopathy. Ann Neurol 1987;21:397-401.
7. Centers for Disease Control. Recommendations for assisting in the prevention of perinatal transmission of human T-lymphotropic virus type III/lymphadenopathy-associated virus and acquired immunodeficiency syndrome. MMWR 1985;34:721-32.
8. Report of the Surgeon General's Workshop on Children with HIV Infection and Their Families, Philadelphia. Washington: US GPO, 1987.
9. Centers for Disease Control. Revised case definition fro acquired immunodeficiency syndrome. MMWR 1987;36:142-45.
10. Maryland AIDS Update 1989;Oct 31.
11. Johnson JP, Nair P, O'Neil KM et al. HIV infection in infants. Am J Dis Child 1989;143:1147-53.

Bibliography

Centers for Disease Control, Atlanta. Personal communication, April 1988.

The European Collaborative Study Group. Mother to child transmission of HIV infection. Lancet 1988;11:1039-42.

Gaetano C, Scano G, Carbonari M et al. Delayed and defective anti-HIV IgM response in infants. Lancet 1987;i:631.

Italian Multicellular Study. Epidemiology, clinical features and prognostic factors of pediatric HIV infection. Lancet 1988;11:1042-46.

Marion RW, Wiznia AA, Hutchenon G, Rubenstein, A. Human T cell lymphotropic virus type III embropathy. ASDC J Dent Child 1986;140:638-40.

Oleske J, Minnefor A, Cooper Jr. R et al. Immune deficiency syndrome in children. JAMA 1983;249:2345-49.

Pediatric Zidovudine Study Group. Indices of neurological status during a phase I trial of zidovudine. Pediatr Res 1988;23:379A.

Phyn KH, Ochs, Dufford MTW, Wedgwood RJ. Perinatal infection with human immunodeficiency virus: Specific antibody response by the neonate. N Engl J Med 1987;317:611-14.

Rubinstein A, Sicklick M, Gupta A et al. Acquired immunodeficiency with reversed T4/T8 ratios in infants born to promiscuous and drug addicted mothers. JAMA 1983;249:2350-59.

Selwin P, Schoenbaum K, Davenny K et al. Prospecitve studies of human immunodeficiency virus infection and pregnancy outcomes in intravenous drug users. JAMA 1989;261:1289-94.

Shannon KM, Ammann AJ. Acquired immune deficiency syndrome in childhood. Pediatr 1985;106:332-42.

Wolinsky S et al. Polymerase reaction of HIV provirus before HIV seraconversion. IV International Conference on AIDS, Washington, DC, 1987.

Ziegler J, Johnson RO, Cooper DA, Gold J. Postnatal transmission of AIDS associated Retrovirus from mother to infant. Lancet 1985;896-97.

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An Integrated Primary Care System for HIV Disease

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Although a "cure" for HIV infection has not yet been found, there are increasing numbers of options for treatment. Like other more familiar diseases, HIV/AIDS present lifelong management responsibilities for both patient and clinician.

From the early days of the AIDS epidemic it has been apparent that successful care of HIV disease would force a re-examination of existing health care systems.[1] The initial manifestations of acquired immune deficiency were *pneumocystis carinii* pneumonia and Kaposi's sarcoma.[2] Later, other opportunistic infections such as cryptococcal meningitis, toxoplasmosis encephalitis, and typical and atypical mycobacterial infection were recognized.[3] More recently, HIV-related dementia and wasting syndrome have become part of the official AIDS definition. In addition, it is clear that a number of non-Kaposi's neoplasms (particularly lymphomas) and increased susceptibility to nonopportunistic pathogens are part of the spectrum of HIV disease.[4]

The good news, outlined more specifically elsewhere in this special issue of the *Maryland Medical Journal,* is that the number of therapeutic options for HIV disease continues to increase. Not only is there a wide range of treatments available for opportunistic infections, but also the first licensed anti-HIV drug, Zidovudine, now clearly has a role in both early and late infection. Furthermore, new antiviral drugs and immunomodulators should further broaden physicians' therapeutic options. Health care providers and systems, however, now face a dilemma: we know more than we can deliver. Thus the growth in the available therapeutic options and the increasing life span of people with HIV disease (even in its later stages, AIDS) present clinicians with a problem: how to construct and maintain a primary care system capable of handling patients with the disease.

Why is AIDS a Primary Care Disease?

The primary care movement has grown in the last 20 years as a reaction to the increased specialization and compartmentalization of American medicine. One definition of primary care deals with the patient care functions of primary care doctors: to provide access, continuity, and integration.[5] Another text has a somewhat broader view of the primary care function:

> 1) Medical diagnosis and treatment; 2) Psychological diagnosis and treatment; 3) Personal support of patients of all backgrounds, and all states of

illness; 4) Communication of information about diagnosis, treatment, prevention, and prognosis; 5) Maintenance of patients with chronic illnesses; 6) Prevention of disability and disease through detection, education, persuasion, and preventive treatment.[6]

Care of persons with HIV disease clearly requires all six of these tasks. AIDS also has a number of distinctive features that make it particularly suitable for a primary care approach:

HIV Infection is a Chronic Disease Although a "cure" has not yet been found, there are increasing options for treatment: thus HIV, like the more familiar diabetes and hypertension, presents lifelong management responsibilities to patient and clinician alike.

HIV Infection is a Multisystem Disease HIV and opportunistic pathogens can affect every organ system of the body. Unless the patient has a physician possessing wide knowledge in a number of fields and capable of judicious use of specialists were necessary, the patient is at risk of being parcelled out among opthamologists, dermatologists, neurologists, gastroenterologists, etc.

HIV Infection is a Highly Labile Disease Not only can patients go ten years or more after infection without showing symptoms, but also acute exacerbations of disease such as opportunistic infections may be punctuated by relatively long stretches of less symptomatic disease. Physicians experienced in HIV care know that patients may look well one day and be deathly ill the next; conversely, some who require intense inpatient hospital treatment may, after antibiotic, antineoplastic, or other therapy, revert to their baseline state. The implication for the health care system is that HIV-infected patients, particularly those who are symptomatic, must have access to providers who can respond rapidly to changes in their clinical condition.

What Are the Requirements of a Primary Care System for HIV?

Outpatient Care The linchpin of primary care for HIV, as for other chronic diseases, is outpatient care (Figure). The past few years have shown that such care, to be effective, must have three central characteristics: aggressiveness, multidisplinary character, and linkages with other parts of the system.

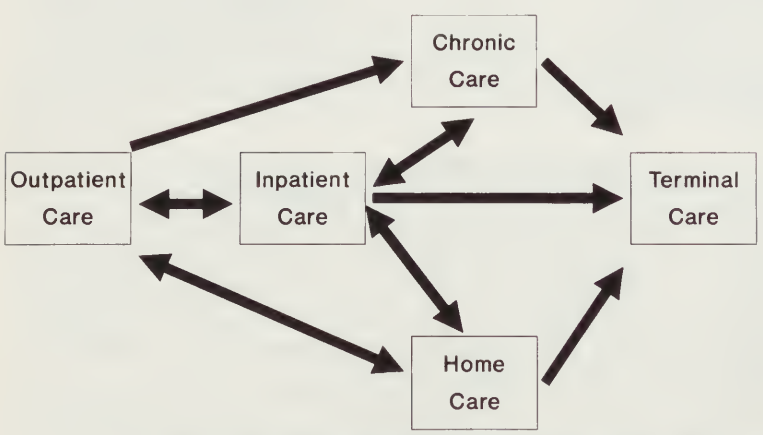


Figure. Spectrum of Facilities Needed for HIV Care

Because of pressures to reduce inpatient hospitalization, HIV outpatient care has become substantially more *aggressive* as physicians have become more and more comfortable with new techniques. Many providers caring for HIV-infected patients now routinely perform such diagnostic and therapeutic procedures as lumbar punctures, transfusions, intravenous hydration, administration of chemotherapy, and induction of sputum for diagnosis of pulmonary infections; each of these was either developed in response to the AIDS epidemic or would have been unthinkable except on an inpatient basis as recently as five or six years ago.

A *multidisplinary approach* is key. Because patients present with a variety of medical, emotional, and social problems, it is important for outpatient care to be able to call on the expertise of medical subspecialists as well as psychologists, psychiatrists, and social workers. Smooth working relationships and, if possible, convenient arrangements for rapid referral to such colleagues as neurologists and opthamologists have been an important part of delivering primary care at The Johns Hopkins Hospital and other major HIV centers.

Outpatient medicine can sometimes be hectic: often there is not time to pursue extended workups or discuss patients' social and emotional needs. It is therefore particularly important that outpatient care have *strong linkages* with the other forms of care HIV-infected patients will need: communication with inpatient units, chronic care facilities, and home health providers will substantially ease the tasks of caring for patients in a busy outpatient setting.

Inpatient Care Despite the intensity of outpatient HIV care, most patients eventually will require hospitalization for one or more periods. It is important that providers caring for HIV-infected patients have access to appropriate inpatient settings when they become necessary. Virtually all hospitals in Maryland have cared for at least one AIDS patient in the course of the epidemic. Some, like Johns Hopkins, have dedicated AIDS units; most do not. Whatever the arrangement, it is important that hospitals be able not only to provide competent medical care to AIDS patients but also to provide a supportive and compassionate environment free of stigma or hysteria.

Home Care The HIV epidemic has stimulated substantial innovation in home care.[7] Many companies, both not-for-profit and profit-making, have become expert in the delivery of intensive home-based antibiotics and other therapies. Many patients can be maintained at home with treatments that a few years ago would have required hospitalization.[8] Such solutions are cost-effective and usually preferred by the patient.

Chronic Care Some patients will, toward the end of their disease, become so debilitated that they need more intensive care than a home environment can provide. At the same time, their conditions (HIV dementia, wasting syndrome, and others) will not respond to acute intervention, and therefore do not require inpatient hospital care. For those patients, chronic care facilities are a natural option particularly if they do not have home/family situations that permit constant attention at home. Currently, few nursing homes accept AIDS patients; the provision of more chronic care beds for HIV-infected patients is one of the most pressing priorities for the health care system.[9]

Terminal Care Although life expectancy continues to increase and new therapies are promising, we may expect that most of those currently ill with AIDS will eventually die of it. It is important to discuss with patients and their loved ones their wishes regarding terminal care. Although many AIDS patients were initially hostile to the concept of hospice because of its connotation of "giving up," hospice services now find increasing acceptance in the AIDS community.[10,11] Around the country hospices (both institutional and at-home services) have sprung up to care for people in the terminal phase of HIV infection. While hospice care is not an alternative that all patients will choose, it often will provide appropriate palliative services to keep patients comfortable in their final days.

Psychosocial Support Many AIDS patients will have tremendous need for psychological, emotional, and social support. Some of this need stems from the fact that AIDS, like many forms of cancer and other chronic fatal illnesses, saps both the patients' physical strength and financial resources. In addition, however, society continues to harbor substantial prejudicial attitudes toward people with AIDS.[12] Patients therefore face a variety of threats to their social supports (job, insurance, and even family support) that are uncommon in other diseases. Many states, including Maryland, have developed *case management* systems in an attempt to respond to these needs. Case management seeks to provide patients with an individual who can help coordinate services such as transportation, application for entitlement, and access to other needed medical and social services. AIDS patients will vary widely in their need for such services. Some, particularly those in advanced stages of disease or with substance abuse problems, will need substantial assistance in managing their affairs. Others will be quite self-sufficient and able to coordinate services and make their own decisions. Whatever the patient's needs, physicians should familiarize themselves with the community based support available in their area and refer patients to organizations and agencies that may assist them with this range of needs.

Obstacles to the Development of a Primary Care System

While substantial steps have been made toward the creation of an integrated system to care for HIV-infected patients, much still has to be done in Maryland and elsewhere. The principal obstacles are: inadequate trained personnel, lack of proper financing of care, and institutional wariness about AIDS.

The problem of the provision of enough trained medical personnel to care for AIDS patients throughout the stages of their illness is a difficult one. While most community settings will rely on *physicians* to provide this care, The Johns Hopkins Hospital, San Francisco General Hospital, and a number of other major HIV centers have relied heavily on so-called "mid-levels" (nurse practictioners and physician assistants). We clearly will need more physicians to be involved in this care. The shortage of physicians to care for people with AIDS is a multifactoral problem (Table). For any individual physician the main obstacle may be one or more of the specific areas cited; nevertheless, it will be the task of the medical community, academic centers, and local, state, and federal health officials to overcome each of these obstacles confronting physicians.

Table. Obstacles to Physicians' Caring for HIV - Infected Patients

Information overload	Inadequate reimbursement
Fear of infection	Fear of loss of other patients
Institutional (e.g. hospital) pressure	Burnout
Dislike of homosexuals	Dislike of drug users

Adequate financing of HIV care is a serious problem both to private physicians and to institutions. Many patients with AIDS must rely on Medicaid from the start, or they eventually will become impoverished and turn to Medicaid. Inadequate Medicaid reimbursement for outpatient care, home care, and other parts of the care spectrum is a serious impediment to providing quality care to AIDS patients.

The last major obstacle to creation of an integrated primary care system for patients with HIV infection is the wariness with which many institutions approach care for these patients. Hospitals, nursing homes, home health care agencies, and others face some of the same financial problems faced by physicians. But their inability (or perhaps unwillingness) to solve these problems – felt most strongly in chronic care facilities – is a formidable obstacle to the creation of a rational, compassionate, and cost-effective system.

References

1. Volberding PA. The clinical spectrum of the acquired immunodeficiency syndrome: Implications for comprehensive patient care. Ann Intern Med 1985;103:729-33.
2. Centers for Disease Control. Kaposi's sarcoma and pneumocystis pneumonia among homosexual men - New York City and California. MMWR 1982;30:305-308.
3. Chaisson RE, Volberding PA. Clinical manifestations of HIV infection. In Mandell GL, Douglas RG, Bennett JE, eds. Principles and Practice of Infectious Disease. New York: Churchill Livingstone Inc., 1990: 1059-91.
4. Monfardini S. Italian Cooperative Group for AIDS-Related

tumors. Malignant lymphomas in patients with or at risk for AIDS in Italy. JNCI 1988;80-855-60.
5. Alpert JJ, Charney E: The Education of Physicians for Primary Care. DHEW Publication No 74-31B. US Government Printing Office, 1975.
6. Stoeckle JD. Tasks of primary care. In Goroll AH, May LA, Mulley AG. Primary Care Medicine: Office Evaluation and Management of the Adult Patient. Philadelphia:Lippincott and Co., 1987: 1-4.
7. Grinker WJ. Out-of-hospital care for persons with AIDS. In Rogers DE, Ginzberg, eds. The AIDS Patient: An Action Agenda. Boulder: Westview Press, 1988: 42-49.
8. Bennett J. Helping people with AIDS live well at home. Nurs Clin North Am 1988;23(4):731-48.
9. Benjamin AE. Long-term care and AIDS: Perspectives from experience with the elderly. Milbank Mem Fund 1988;66(3):415-43.
10. Droste T. Going home to die: Developing home health care services for AIDS patients. Hospitals 1987;61(16):54-58.
11. Clark C, Curley A, Hughes A, James R. Hospice care: A model for caring for the person with AIDS. Nurs Clin North Am 1988;23(4):851-62.
12. Blendon RJ, Donelank. Discrimination against people with AIDS: The public's perspective. N Engl J Med 1988;319: 1022-26.

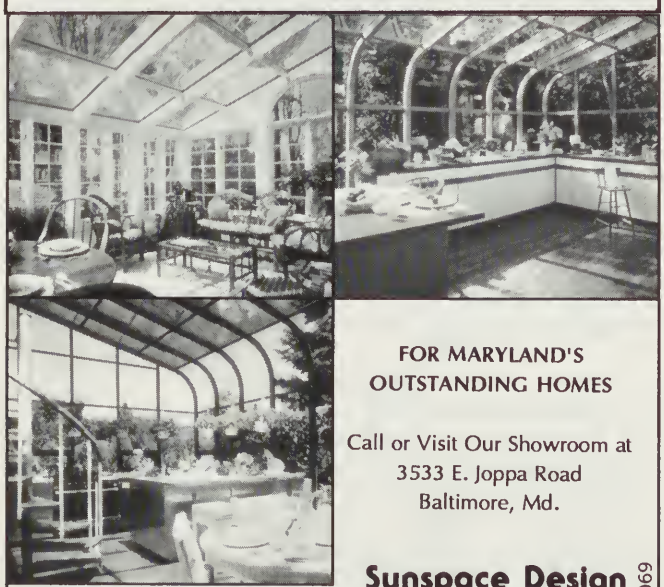
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Booklet providing basic facts on HIV transmission and accurate data on its impact on Hispanic communities. Part of the extensive resources and contacts available through COSSMHO. Technical assistance hotline 1-800-AIDS-123 offers help in identifying on going programs, speakers, funding sources, data, and link-ups with local and national Hispanic leaders.

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The Emerging Physician-Patient Partnership

Robert M. Mehl

Beginning with his own diagnosis, a person with AIDS comments on personal philosophies, the change in physician-patient relationships, the political impact of the AIDS epidemic on health care services, and concludes with a list of resources for physicians.

The author is Positive Directions Coordinator, Preventive Medicine and Epidemiology, Baltimore City Health Department.

Although the plague clouds our thoughts and our eyes, we must always remember that AIDS is what has happened to us, not who we are. And that what we do as a society will be measured not by the depth of our grief but by the depth of our commitment to those who suffer.

Robert M. Mehl, 1988

To understand who I am today you need to follow the history of my emotional travels with AIDS.

In February of 1986 I was the Executive Director of the AIDS Medical Foundation (AMF), the creation of Dr. Mathilde Krim, a renowned virologist and humanitarian. She and colleague, Dr. Joseph Sonnabend began seeing unusual pathologies in gay men in New York City. This interest led to the founding of AMF as a means of funding research. (AMF later merged with a west coast group, and the new organization is known as the American Foundation for AIDS Research). I was asked to be Executive Director because of my years as a highly visible liaison to the gay community of New York in the first Koch Administration, and I was as deeply involved in the epidemic as anyone. (I had lost several friends; today that number stands at 43.)

That fateful February I noticed a lump in my groin. It grew and in a month was an inch and a half across. I knew I needed to consult a physician. As a member of an HMO, I was assigned to a surgeon for a biopsy. He postulated that a single swollen lymph node could be either "cat scratch fever" or the much more serious lymphoma. At no time was AIDS suspected or discussed, as I had not as yet been tested for the presence of the virus.

A week later he called me back for the test results. He asked me to sit down and inquired if I knew what AIDS was. I said yes, and he said, "Well, you have it." The biopsied lymph node had visceral Kaposi sarcoma present. I sat stunned! He said, "Well, I'm busy; you will have to excuse me now." My pre- and post- test counseling combined had taken about 30 seconds. I hobbled home and cried for a week. One morning I woke up and realized I couldn't continue like that, and there begins the creative formulation of Living and Surviving with AIDS.

Positive Directions Philosophy

Over the nearly four years since my diagnosis I have developed a personal philosophy of living and surviving AIDS. I called it Positive Directions. It is simple and uncomplicated, basically incorporating many of the "12-step" attitudes, including living "One day at a time" and the old adage "If you have lemons, make lemonade". It stresses quality of life (not quantity) and adds all the principles of long-term survivorship as contained in the research of Dr. George K. Soloman at UCLA.[1] They include:

- Be realistic and accept the AIDS diagnosis but do not take it as a death sentence.
- Have a fighting spirit and refuse to be "helpless-hopeless."
- Change lifestyles.
- Be assertive and have the ability to get out of stressful and unproductive situations.
- Be tuned in to your own psychological and physical needs, and take care of them
- Be able to talk openly about your illness.
- Have a sense of personal responsibility for your health, and look at the treating physician as a collaborator.
- Be altruistically involved with other persons with AIDS

It is a philosophy long on determination and short on self-pity, and its adherents generally live longer and more productive lives. It simply works.

The Old Order and The AIDS Revolution

Time was that a physician, omnipotent and all knowing, would tell the patient what to do, and the patient would say, "Yes, Doctor." Since the advent of AIDS that no longer happens with any regularity. More likely the exchange would be similar to a conversation I had recently with my own "care partner," Dr. Larry Bruni of Washington, DC. Dr. Bruni asked, "What do you think *we* ought to do about this problem?" I am not just an illness with a social security number but a consultant and participant in the process. This attitude is beginning to spread to people with other diseases as well. Not only patients with AIDS but also others suffering from chronic illnesses soon will be confronting their physicians with questions of "What were my test results?" "What do the results mean?" "Why prescribe that medication?"

To a physician from a traditional practice this may appear that the patient is "second-guessing" the doctor. However, it is an opportunity to help the patient become part of the care equation, resulting in better care through cooperative sharing of information. The technical expertise of the physician and the personal, physical information the patient can share will enable both to arrive at a more accurate and quicker diagnosis.

The FDA and the Drug-of-the-Month-Club

Perhaps the most highly publicized and visible result of this new point of view is how a tidal wave of patient protest has caused great change in one of the most immovable and old fashioned agencies in the federal government, the Food and Drug Administration. Founded to protect the public, the FDA has fulfilled that mission well. From the many deaths from antifreeze poisoning in the 1930s leading to the creation of the FDA to the thalidomide scare of the 1960s it was there to "guard the gates." But it became inflexible.

To understand how a rag-tag army of persons with AIDS (PWA) could bring a powerful institution like the FDA to its knees, one needs to understand the movement's roots in Gay Liberation. The gay community was the first group to be devastated by AIDS, and the losses were so great that a huge anger developed. In the late 1960s gay oppression caused a similar anger, which the gay community directed at the powers that be. Over the years they have built that force into great political clout.

That same anger and frustration was turned against the FDA. It is very difficult to hold the status quo when AIDS patients in wheelchairs break down doors. To many this might seem outrageous behavior, but if you have AIDS and only a short time to live, you find it difficult to accept the fact that a drug you could benefit from will not be available for years because of repetitious procedures. This brings us to the Drug-of-the-Month Club.

Because of the great interest in AIDS, many new drugs are coming forward for consideration causing confusion among patients as to their relative benefits. Desperate people sometimes do desperate things, and some AIDS patients switch from one drug to a new one before they see results from the regimen. It is hoped the stabilization of the testing process will pinpoint fewer, more positive medications on which patients can focus. Groups such as Project Inform and *AIDS Treatment News* are doing a great service informing and educating the AIDS community about the relative merits of various new drugs.

Terminology and Point of View

AIDS has developed its own set of expressions and terminology. "What are your T-4 cells?" has replaced "What is your sign?" as party conversation. But there are definite dos and don'ts. People who have this disease prefer to be called persons with AIDS. They are not always patients; that occurs only when they are in that setting of clinic, hospital, or physician's office. They are especially not "victims." A victim is someone who has no control over circumstances. However, a person with AIDS does have an ability to impact on the illness in a constructive and creative way.

Nutrition and Stress Problems

Many physicians are unaware of the particular nutritional problems of PWAs. The disease often is exacerbated by malabsorption and malnutrition. This

"wasting syndrome" takes away the body's strength and ability to fight disease. Calories consumed are often inefficiently used, and as much as half the benefit is lost. Patients should not have to rely on their own resources for nutrition. Food-delivery programs in many major cities provide well-formulated menus for PWAs that meet the nutritional needs and low-motivation of the patients. Baltimore has a program called, "Movable Feast" that is free to clients; a similar program is operating in the District of Columbia.

Reduction of stress is another important factor in the management of HIV disease. Emotional distress and mental anguish have negative impacts on the body's ability to fight off opportunistic infections and disease. Patients need to be taught stress-reduction techniques and guided imagery to better manage periods of undue emotional disturbance.

Impact On the Health Care System

The threat on the health care system in this country and the rest of the world cannot be underestimated. Today we have about 60,000 patients living with AIDS and dealing with periodic bouts with opportunistic infections requiring regular medical supervision and frequent hospitalizations. Another number, perhaps 10 times that 60,000, are seropositive, and some of those individuals are beginning to have slight to serious abnormalities from their HIV infection. This only addresses the present patient load. In the future there probably will not be enough physicians and hospital beds to deal with the flood of new HIV cases.[2] This disease will test not only the ability of our present health care system to manage this horrendous ailment, but also it will test our humanity. If as a society we don't measure up to this task, the entire future of health care and of our commitment to others will be in jeopardy.

References

1. Gavzer B. Special report - Why do some people survive AIDS? Parade Mag 1988;Sept 18:5.
2. Special Report: State Polocies and the Financing of AIDS Care by the Rand Corp. Health Care Financing Review 1989;11:1.

Resource List

Hotlines

AZT Hotline
1-800-843-9388

Maryland AIDS/HERO Hotline
1-301-945-AIDS or 1-800-638-6252
9 am - 9 pm/7 days a week

Centers For Disease Control
Atlanta, GA
1-404-639-2076

National AIDS Hotline
Run by the American Social Health Association
Sponsored by the CDC
1-800-342-AIDS

National AIDS Information Clearing House
PO Box 6003
Rockville, MD 20850
1-800-458-5231 1-301-762-5111
9 am - 7 pm/Mon - Fri

US Public Health Service
200 Independence Ave. SW
Washington, DC 20201

Community Service Organizations

Health Education Resource Organization (HERO)
101 West Read St. - Suite 819
Baltimore, MD 21201
1-301-685-1180

National AIDS Network
2033 M. St. NW - Suite 800
Washington, DC 20036
1-202-293-2437

State and City AIDS Programs

Baltimore City Health Department
AIDS Prevention Program
303 E. Fayette St.
Baltimore, MD 21202
1-301-396-1927

Maryland Dept. of Health and Mental Hygiene
AIDS Administration
201 W. Preston St.
Baltimore, MD 21201
1-301-255-6707

Alternative Therapies

AIDS Treatment News
PO Box 411256
San Francisco, CA 94141
1-415-255-0588

Project Inform
374 Dolores St. - Suite 301
San Francisco, CA 94110
National 1-800-822-7422
California 1-800-334-7422
Local 1-415-558-9051

continued next page

Substance Abuse Alcohol/Drugs

Addict Referral and Counseling Center
21 West 25th St.
Baltimore, MD 21218
Gary Phinney
1-301-366-1717

Man Alive
2100 North Charles St.
Baltimore, MD 21218
Rod Adams
1-301-837-4292

Sinai Hospital - Drug Dependency Program
Belvedere and Greenspring Aves.
Baltimore, MD 21215
Vennay Pugh, Intake
Ed Porembski, HIV Coordinator
1-301-578-5355

Professional Counseling

Behavioral Science Associates, Inc.
Edward Geraty, MA
Suite 340 West Quadrangle
Village of Cross Keys
Baltimore, MD 21210
1-301-435-9281

Richard Carpenter, EdD
1419 Bolton St.
Baltimore, MD 21217
1-301-669-6999

The Johns Hopkins Hospital
First AIDS Service - Support Group Information
6000 North Wolfe St.
Baltimore, MD 21205
1-301-955-1725

Legal Assistance/Discrimination

Attorney General's Office
7 North Calvert St. - 34rd Floor
Baltimore, MD 21202
1-301-576-6359

Baltimore City Bar Association - PWA Project
Dan Anderson
301-576-6523
Pro bono panel attorneys

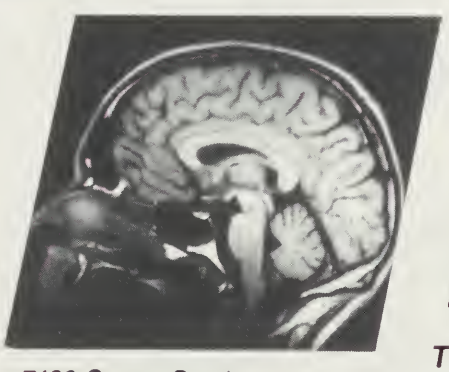
Maryland Commission on Human Relations
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Baltimore, MD 21202
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Bernie S. Siegel MD

Dr. Siegel is Assistant Clinical Professor of Surgery at Yale Medical School, and author of the best-selling books, "Love, Medicine and Miracles," and "Peace, Love and Healing."

We should study success by looking at people who survive life-treatening illness. Such "exceptional" patients have certain characteristics in common. We should realize that people want care and healing, not necessarily cure.

It would have been easier to write this twenty years ago when "living long" meant to live many years and living well meant life with the absence of disease. My definitions are different now. Today, "long" relates to the time it takes to accomplish something with one's life, and "well" equates with peace of mind and loving relationships, rather than to a state of the body. Thus I know a nine-year-old who lived a long life. I also now know that living "well" affects the body positively, often with longevity as the by-product.

Eleven years ago I began working with cancer patients in support groups, utilizing a variety of mind-body healing techniques. I thought the groups were a place for me to teach people how to survive their difficulties and to improve the quality of their lives between office visits. I believed I had the answers, however I soon realized it was my patients who were the teachers. After several meetings it became evident that the group members were looking and feeling better. My wife Bobbie called them "exceptional patients," and the label stuck.

Forty years ago, Karl Menninger said,

> It is our duty as physicians to estimate probabilities and to discipline expectations; but leading away from probabilities there are paths of possibility, toward which it is also our duty to hold aloft the light, and the name of that light is hope.

Indeed I began to realize that hope was not statistical and that the future cannot be predicted for individuals.

As a physician and surgeon I realized I had never studied success. Medical practice, because of inadequacies in medical education, is aimed at keeping people from dying, but everyone dies. It is strange that medicine has never studied success. We have thousands of people who have gotten over incurable diseases, and we never ask why they didn't die according to their prognosis. I started asking the question, and the answers all sounded alike. There *is* something we can teach others to help them become exceptional and it *is* possible to share practical advice.

The common denominator of long-term survivors of AIDS,

cancer, and other life-threatening illnesses is that they take charge of their lives. Nursing and medical professionals however, usually classify them as "difficult" patients. They often ask too many questions and while in the hospital keep their clothes on, decorate their rooms, cruise the hallways, and in general, disturb the acceptable and standard routine. Since the word "patient" means a submissive sufferer, you can see why it is a bad sign to be a good patient. Exceptional patients are responsible participants in survival behavior. They accept their mortality but use it as a stimulus to grow and change. They say things like:

"I decided to experience unconditional love before I died."
"I decided to make every day precious."
"If you live in your heart, magic happens."
"I decided to die only once."
"If I die, who will finish the work of making the world beautiful?"
"I looked for someone to carry the torch (of hope) and I realized the job was mine."

They learned to live their lives.

In contrast to the exceptional patient, I've often heard comments like:

"I'll make this marriage work if it kills me."
"I hate my job and what I do each day."
"My life doesn't mean anything."

And I've seen what it does to them.

Dr. David Spiegel reported at the May 1989 Psychiatric Association meeting that one year of group therapy and autohypnotic techniques in women with advanced breast cancer doubled their survival time over a control group (36+ months to 18+ months).

Wil Garcia and George Melton are two exceptional AIDS patients. They share their story in *Beyond AIDS, A Journey Into Healing.* Wil, a computer scientist and George, a hair stylist, responded to their diagnosis of AIDS very differently. George shared his diagnosis with his clients and adopted a metaphysical path. He filled his life with love. Wil studied the immune system and science. His T-4 count went down, and George's went up. Eventually the scientist adopted the path of the stylist, and both are well and free of AIDS symptoms today.

We cannot separate the mind from the body. Emotions are chemical. It is important to understand that unexpressed feelings of despair and hopelessness lead the immune system to presume that we want to die. As physicians we must use the opportunity of a disease to help heal people's lives. Ask your patients to describe what they are experiencing. Listen for the metaphors in their answers, and help them see how they can apply them. A healed life may lead to a cured disease. Disease can be a gift if it heals a family or monster in someone who needs to express himself or herself.

For many reasons medicine has focused on its mechanical advances in this century and forgotten people. I don't deny or diminish the tremendous scientific advances of our era, but it is time we dealt with our feelings and realized that people are asking for care and healing, not necessarily cure.

I asked three young people - two with metastatic cancer, and the third with liver failure to due to cystic fibrosis - what they expected from the medical professional. They said, "Tell them to treat me like a person, knock on my door, let me talk first, say hello and goodbye, and look me in the eye." That doesn't seem like too much to ask. We are all capable of doing this, and the beauty of it is that when we help people heal their lives, a wonderful by-product may occur, namely a cured disease.

We produce winners when we lead people from "Why me?" to "Try me!" There are no failures, and guilt doesn't apply when we take on adversity instead of shirking it and when we honestly face our mortality.

As seven-and-a-half-year-old Jason Gaes said when dealing with his cancer, "Everybody's gotta die sometime." The problem is many of us die without ever living. Let us guide people through their personal hell, as Virgil did in Dante's *Inferno*, and lead them to life and healing. ■



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Integrating Traditional Medicine with Other Therapies in the Treatment of HIV-Infected Individuals

Charles L. Steinberg MD

Individuals affected by HIV have brought a high level of intelligence, assertiveness, and motivation to the exploration of new therapies. Much is being tried and learned outside the "traditional" medicine.

This article fills a gap in our total perspective by providing a summary of therapies our patients are doing in addition to what we prescribe. It is intended to inform physicians about these modalities not to present objective, scientific evidence about them.

Our knowledge has been enhanced by these therapies, for example, the active research on Chinese herbs as potential pharmacological agents and on the importance of nutrition, B-12, and folate deficiencies in HIV-1 positive individuals.

Perhaps this article will stimulate further research into some of these therapies and increase our awareness of others. Learning about such treatments may not only help our patients and the quality of their lives but also prevent them from harming themselves. *Editor*

A family physician and founder of Wellspring Partners in Health of Boulder, Colorado, Dr. Steinberg works extensively with people who have AIDS and HIV infection, integrating traditional and complimentary care. He is a leader in treating AIDS as a chronic manageable disease.

The AIDS epidemic has had a radical affect on all aspects of health care, ranging from many new understandings in the basic science of disease, new clinical approaches and pharmacologic agents, to unique social and political shifts, with much greater involvement of the individuals directly affected by the illness and with widely expanded social support efforts.

One part of this new and complex system has been the widescale use by HIV-positive individuals of alternative therapies usually not considered part of traditional medicine. Some of these are actually more "traditional," coming out of the long-standing traditions of Oriental medicine, nutritional medicine, and conventional wisdom. Some have emerged from the recent psychological and metaphysical "self-healing" or "holistic" approaches blended with the new scientific discoveries of the field of psychoneuroimmunology. These approaches often are labeled "complementary," implying these alternatives may be added with benefit to traditional methods. Finally, some therapies that may eventually be studied and incorporated by traditional medicine already are being used by patients outside of approved clinical trials. This article reviews the current use of complementary and experimental therapies in AIDS care and describes how they may best be integrated with standard medical practice.

Individuals affected by HIV, particularly the gay community, have brought a high level of intelligence, assertiveness, and motivation to the exploration of new therapies. There exists a never-before-seen network of communication and resource sharing in the form of newsletters, conferences, and word-of-mouth communication. There are underground "trials" of new agents, legitimate protocol monitoring of the effects of alternative therapies, and data banks recording information on large numbers of individuals using these therapies.[1] Much is being tried and learned outside the traditional system.

In part, this has been motivated by people seeing their illness progressing faster than is traditional medical research. In part there is a deep distrust of government researchers and authorities, the corporate profit motive, and the underlying homophobic prejudices in society. This is also coming from the direct experience of affected individuals involved in their own health care, understanding their disease, and exploring therapies. In this crisis of uncertainty and helplessness, individuals discover that becoming more involved can give a sense of dignity, power, and control. In the past health care providers have seen self-directing patients and their home therapies as problematic, introducing innumerable unknowns and potentially harmful agents into an already uncertain situation. Many are reframing their ideas of the optimal physician-patient relationship into one of partnership, where both doctor and patient provide ideas, information, resources, and judgment in a true collaborative effort.[2]

Complementary therapies generally are described as helping the body heal by "empowering inner healing mechanisms" that exist in the body. The common (but not necessarily true) distinction between complementary and traditional therapies holds that the former are more natural, more gentle, and more safe.[1]

Chinese Medicine

Chinese medicine is a unique 5,000-year-old system of viewing the body and of healing by use of acupuncture (needle stimulation of specific points on energy meridians), many herbs, as well as associated therapies. The emphasis is on treating the whole person, not just the specific disease, so that two different people with the same illness might have two very different treatment programs. The idea is to understand and then effect changes in the underlying constitution of the individual affected. Chinese medicine recognizes the vital role of diet, and although recommendations may vary for individuals, in general there are suggestions toward less dairy and less protein, with more whole grains and vegetables.

Acupuncture and Chinese herbs have had some effect in the specific relief of symptoms. Many HIV-positive individuals are bothered greatly by such general symptoms as itching, fevers, sweats, fatigue, and pain. Since each symptom can be seen as an imbalance in the total organism and be directly affected by acupuncture and herbal therapies, many individuals have obtained relief from them by using Chinese approaches when traditional medical approaches failed or in lieu of more toxic alternatives.[3] Chinese medicine takes many steps to strengthen the entire body, specifically the immune system. The gentle attitude of Chinese medicine also has proved quite helpful, bringing a high degree of respect for each individual and the idea of balancing all the forces affecting the person in healing. Finally, Chinese medicine has provided many specific herbs (such as the Chinese cucumber root) now being explored as potential pharmacologic agents.

Nutrition, Vitamins, and Supplements

It is a common-sense understanding of most people that what they eat will affect how they feel. Nutrition is seen as a way to maximize the health of the individual, enhancing vitality and well being. Nutrition also is seen as a way to shift the internal environment and make it less favorable for opportunistic infection. For example, fungal infections, particularly thrush, have been improved simply by lowering the sugar content in the diet. The nutritional guidelines proposed for AIDS patients include what most health care practitioners would consider common sense: adequate calories, vitamins, protein, and complex carbohydrates provided in regular meals each day.[4]

It is important to understand healthy nutrition in a context that extends beyond simply supplying optimal building blocks to the body. At a deeper level, how people shop for food, prepare their food, and feed themselves is an opportunity for individuals to demonstrate how they care for themselves. The usual barriers to providing optimum nutrition for AIDS patients often are not inadequate information but, more likely, deeper blocks to self-caring.

The specific vitamins and supplements being used in HIV therapies are shown in the chart.

The correct choice of nutritional supplements is a troublesome question and needs to be highly individualized. Some patients end up taking hundreds of dollars a month worth of supplements in a complex and difficult regimen creating a financial burden. Others manage with either none or a few capsules a day. In practice, the physician can advise a proper balance and with the patient's interest and motivation, help guide the degree to which nutritional supplements are used, if at all. Patients must be taught that nutritional supplements cannot overcome an inadequate or hastily thrown together diet. The bulk of essential nutritional building blocks will still come from regular, balanced meals.

Studies show that many HIV-related individuals have mild small intestinal malabsorption problems and are asymptomatic. Some patients have quite symptomatic diarrheal illnesses. In these cases, specific attention must be paid to providing nutrition

Chart. Vitamin, Mineral, and Herb Supplements

Vitamins Since the work of Pauling and Cathcart, vitamin C in large doses has been used as an antiviral drug. Individuals often take 10 to 20 grams a day of oral vitamin C and, in some, doses up to 80 or 100 grams a day have been used. The usual limiting factor on dose is the symptom of diarrhea, and the usual recommendation is for an individual to accelerate their dose until they experience diarrhea and then back off to approximately 80 percent of the "bowel tolerance" dose.[5] The evidence for the effectiveness of vitamin C in this illness is all anecdotal, although many individuals claim a lessening of their symptoms and less frequent infections. A logical conclusion at this time seems to be that if someone is interested in taking vitamins, vitamin C in the dose of 6 to 12 grams a day many be helpful and has not been shown to be harmful. The use of intravenous vitamin C in high doses seems too invasive and difficult, although it does have a few supporters.[6]

Most individuals who use vitamin therapies also take a multiple vitamin with a B complex supplement. This is based on the idea that even with good nutrition, it is impossible to be sure all vitamins have been obtained in adequate doses, depending on where products were grown and soil composition. Particular attention has been paid to vitamin B12 and folate levels because of the macrocytic anemia that develops with AZT therapy. Frequently, levels of these two vitamins are checked and appropriate therapy instituted.

Minerals Similarly, a question has been raised about adequate levels of certain minerals in the diet. It has been documented that HIV-infected individuals may be deficient in zinc, and zinc supplements at the dose of 100 to 200 mg per day currently are recommended.[7] Selenium, a mineral that should be available in green, leafy vegetables, can be deficient when the soil where the vegetables are grown has been depleted. Selenium is taken in doses of 100 to 200 micrograms per day because milligram doses have been shown to be toxic. This is an example of how the knowledge and vigilance of physicians prevents harm.

Herbs Many medicinal herbs are being used by HIV-infected individuals. One group includes echinacea, shitake mushrooms, and astragalus. All these contain high molecular weight polysaccharides, which may cause an increase in macrophage an lymphocyte function.[8] They have been used for centuries in folklore medicine for their antiviral properties. Garlic used both in its raw form as well as in capsules is touted to have antibacterial effect. PauDArco is a Brazilian herb that is made into a tea and said to have antifungal effects. These herbs usually are used in a daily form of prophylaxis to prevent infection and are not thought of as strong enough for primary treatment.

A newer herb that has been explored and described extensively in the AIDS treatment newsletters is St. John's Wort. This common plant contains hypericin and pseudohypericin, which have, in studies presented at the 1989 Montreal AIDS conference, been shown to have *in vitro* antiretroviral effect.[9] Reports indicate that it is safe to combine with AZT, and monitoring studies are now ongoing to measure its effect. St. John's Wort is also known to be an antidepressant. There is some concern about its toxicity both as a photosensitizer and as a potential elevator of liver enzymes. Finally, there is the unknown potential problem of its combination with other antidepressants some patients may be taking.

A product harvested from the surface of lakes and oceans, blue-green algae, is also being used by many HIV-positive individuals. It is a complex substance that contains amino acids, minerals, and other organic compounds. Its recommended use is as a boost in energy for chronic fatigue. Many patients report this effect. It has been used by some to help correct the anemia induced by AZT. Recently it has been shown at the National Cancer Institute to also have, in itself, antiretroviral properties.[10]

and supplements in a manner that will maximize absorption. For example, patients with undesirable weight loss have sometimes been helped with predigested amino acid supplements, such as Vivonex and Ultrabalance protein powder. Similarly, the lactose in milk products frequently is not tolerated, and some individuals will need to be on a milk-free diet or take lactase supplements.

When paying such detailed attention to the nutritional substances an individual consumes, it is equally important to attend to avoidance of harmful substances and substance abuse. A recent report that drug and alcohol use did not affect immune function belies our clinical experience that cessation of alcohol abuse, marijuana, cocaine, and other drug use leads to improved immune function as well as improved overall health.[11] In particular, since alcohol is toxic to the liver and marijuana harmful to the lungs as well as possibly to T-4 cells and since these are primarily affected in HIV-related illnesses, it makes sense to help a patient deal with drug-abuse problems. Substance abuse is a significant barrier in emotional and interpersonal well-being and can limit an individual's ability to cope well with the impact of HIV illness.

Physical Exercise

Vigorous aerobic physical exercise is an essential part of keeping the human organism healthy: it has the obvious effect of strengthening the musculoskeletal, cardiovascular, and respiratory systems, and there is some evidence that it may improve immune function and T-4 cell counts.[12,13] For most individuals, it offers an opportunity to expand the accumulated muscular tension from everyday stresses and provides elevated endorphin levels, a natural antidepressant. Many forms of physical exercise also provide opportunity for fun and social interaction. Creating an optimal exercise program requires more than just information. It is an opportunity for an individual to experience self-love and will work best when an individual finds a program he or she truly enjoys.

Massage and Other Touch Therapies

Massage is an ancient healing art now quite popular. In many centers of the epidemic, there are extensive massage programs for AIDS patients. At the physical level, massage provides relaxation and a heightened sense of well-being and improved circulation of blood and lymphatics. The edema that developes secondary to Kaposi's sarcoma can respond to massage therapy.

Massage often affects people in a deep and personal way. During a massage, an individual's attention is often directed inward, where he or she may discover patterns of holding stress or areas of inner discomfort. The relationship that develops with a massage therapist also can be healing. For many individuals, it is the unique experience of *being touched* after developing an "untouchable" disease. For many, the emotion-

al issues of isolation, loneliness, guilt, and shame may be dealt with as a result of this inner experience during massage.

Support Groups

The use of support groups for chronic illness did not begin with HIV and previously has been demonstrated effective in groups for patients with cancer, Alzheimer's disease, multiple sclerosis, herpes, alcoholism, among others.[14] Individuals coming to a support group initially receive help with their feelings of shock and denial as they deal with being given an HIV-positive diagnosis. They often encounter living proof of others who are surviving and thriving. Here is a forum for sharing new information on treatments and resources, as well as a time to do active problem solving. Individuals build a support network that extends outside of the group and helps meet emotional needs as well as daily needs for such things as food, transportation, housing, and jobs. All this occurs in a context of talking through the difficult issues for someone who is HIV-infected: fears and hopes, who and when to tell, family relationships, dating, sex and love, and philosophical questions about the meanings of life and death. Such groups also provide time for healing activities together, such as singing, meditating, the use of imagery, as well as outside recreational activities, sports, and camping trips.

Psychological and Metaphysical Approaches

Much of the work done to improve the life and care of the HIV-affected individual has been done in the psychological and spiritual realm. The books and tapes of Dr. Bernie Siegel, Dr. Elisabeth Kubler-Ross, Dr. Carl Simonton, Dr. Gerald Jampolsky, and Louise Hay have been widely read in the AIDS community.[15-23] These approaches attempt to offer an individual answers in his or her search for inner peace, joy, love, spiritual growth, and connectedness with others. Whether these approaches provide simply a better attitude or directly affect the immune system awaits further studies by psychoneuroimmunologists.

Integration

How can a physician, other health care provider, or a person living with HIV sort through this array of therapies? How can this all be integrated with standard medical practice? It is not easy. It takes commitment, dedication, and support in an ongoing way. There are some real dilemmas in creating an optimal healing plan. The following are some general guidelines for integrating complementary therapies with traditional medical practice.

Finding the right balance If a patient were to follow all the above therapies, he or she would be focusing most of his/her time on the HIV infection. Reading newsletters; going to conferences; making appointments; going to support groups; listening to tapes; taking medicines, supplements, and herbs; eating healthy meals; doing physical exercise, meditation, imagery, and relaxation techniques; and seeing alternative therapists would constitute a full-time job. There is also the agenda of attending to life's regular daily activities, visiting friends, and doing the laundry. Each individual, in partnership with his/her health care provider must find the right balance between life's regular moments and the various aspects of their healing plan.

When a person living with HIV wakes up and notices a new minor symptom, the same balancing question arises. The monologue that a person with AIDS may go through in deciding whether to call a health care provider is intense. "This is nothing to bother the doctor about; I'm sure I'll be fine. My higher intuition says I'm fine. Or maybe that's just my denial . . . maybe I'm not worth the care. If I call him, maybe he'll think I'm a hypochondriac." The best interventions are with early diagnosis and treatment, so for this balancing question it is best to encourage a patient to call with any new symptoms.

Dealing with uncertainty Individuals affected with HIV and their health care providers need to acknowledge that creating an optimal health plan is dealing with uncertainty. Every few weeks there is new information to guide choices, thus treatment plans need constant revision. Frequently a physician must decide how intensively to work up an individual's early symptoms. There are no clear-cut algorithms for this difficult question. It is appropriate to combine one's best medical judgment with the patient's and family's wishes, as well as the intuition of all involved. The art of medicine is as important here as is the science of medicine. The physician-patient relationship is comforting and healing in all illnesses, especially this one.

Anger There is much anger in the world of AIDS. Individuals have lost their jobs, their homes, and their support systems because of this diagnosis. Government agencies have been slow to respond, and the pharmaceutical industry has created therapies that are unaffordable. Many people have experienced great personal loss.

Anger is a healthy and normal feeling in this situation. Expressing anger can be healthy; holding in anger can be hard on one's psychological well-being. Many activist groups have arisen, and protests and marches are frequent. However, holding on to anger, expressing it again and again, can have a detrimental effect on one's enjoyment of life. Finding the balance between appropriate expression of anger and then moving to the work ahead is an essential part of AIDS care.

Nonexclusivity Often the question is heard from a patient, "Should I follow the medical recommendations or use alternatives I've read about?" The "or" in this question implies that these approaches are mutually exclusive. This is an artificial separation. Frequently physicians without knowledge in alterna-

tive areas discourage their use simply because they are unfamiliar with the specific modality mentioned. Similarly, practitioners of alternative therapies often downplay the importance of traditional medical care or discourage its use as toxic or unnatural. Individual practitioners' egos and their defensiveness need not create an artificial barrier to combining therapies. The best approach is to use common sense and whatever information is available in a nonexclusive fashion to combine different modalities into an optimal health plan.

For example, the opportunistic infections caused by the herpes simplex and herpes zoster virus traditionally are treated with acyclovir. There is, however, no harm in combining this with the known nutritional benefit of selenium as well as the amino acid lysine. Similarly, while Pneumocystis pneumonia needs to be treated with pharmacologic agents, smoking cessation is an obvious complementary therapy.

A better example might be insomnia, which is a frequent symptom of the HIV-affected individual. The insomnia comes not only from the multiple stresses created by this illness but also in some people as a side effect of AZT, as well as a result of nighttime symptoms of fevers, sweats, and itching. Probably the last therapy to be used for insomnia should be the benzodiazepine class of hypnotics. They frequently result in sedation and memory loss reminiscent of dementia. Many alternative therapies for insomnia exist, including the nutritional supplements of camomile tea, volarian root and tryptophan. (The latter, used on many detox wards, is a good example of the traditional learning from the complimentary.) Similarly, a regular sleep schedule, a daily exercise program, and a diet that omits caffeine and sweets can be helpful in sleep induction. Both massage and acupuncture have helped treat insomnia. The use of relaxation and sleep-induction tapes have been quite helpful. A last example of this principal of nonexclusivity comes from a particular patient with Kaposi's sarcoma who participated in the early NIH trials of combination interferon and AZT therapy. The researchers, curious as to why this patient had particularly fewer side effects compared to his cohorts, were surprised to find that most of the patient's side effects were being relieved by weekly acupuncture treatments.

Responsibility The most popular jargon in complementary therapies is to encourage an individual to "take responsibility" for his/her health care. While this speaks favorably to becoming fully involved and active in one's healing, it frequently is construed by the individual that he or she isn't doing something correctly. Feeling blamed and guilty because one is ill is not conducive to well-being. Self-responsibility is meant to direct an individual toward active involvement, self-education, and making choices while working in partnership with the health care provider. There is no room for self-recrimination, guilt or blame in any area of true healing.

Empowerment The newer model of the physician-patient relationship as a partnership is quite empowering to the individual who is ill. It is part of the above-discussed responsibility issue. The health care provider needs to look at what choices and actions tend to give more of a sense of power to the affected individual. Since being ill, needing therapies, and being in the hospital are disempowering, the path to health requires conscious effort toward empowerment. If individuals can gain the sense that the choices and actions they make will influence what will happen to them, they will tend to feel better about their health care.

The well-documented but poorly understood placebo effect can be seen as an example of the role of empowerment. When an individual believes that a treatment or therapy he or she is using is effective, that by itself can add greatly to its effectiveness. AIDS underground therapies, such as dextran sulfate and AL-721, were believed in and experienced by many individuals to be quite helpful. When later research proved these therapies to be ineffective, individuals experienced a recurrence of symptoms.[23] The best approach is to consciously use the placebo effect in every therapy for the patient's well-being. What this really means is to tap the inner healing ability of the individual's body with direct support toward that individual's empowerment. Similarly, if a patient's beliefs are such that a specific therapy is seen to be harmful, the enforced use of that therapy may well lead to early toxicity. As an example, many AIDS patients' attitudes about AZT have presaged their adverse outcome with this therapy.

Hopefulness Since the beginning of the AIDS epidemic, it has been shrouded in a shadow of doom and gloom. Early in the epidemic there were many undocumentable predictions that all who seroconverted eventually would develop AIDS and all AIDS patients eventually would die.

Now there are long-term survivors, and there are individuals who are in remission. There is, in traditional medical teaching, the maxim that it is unfair to give false hope to a patient. While this is true, in a disease that is being studied so intensively, with new therapies developing rapidly, there is great room for offering optimism to patients. For many, hope becomes a choice rather than a logical conclusion. It is the ancient dilemma of whether one sees half a glass of water as half full or half empty. The quality of life for many HIV-infected individuals has been greatly improved by choosing hope. Optimism is an essential element in empowerment.

At this moment in the epidemic, there is much to be optimistic about. Standard therapies such as AZT and Pneumocystis prophylaxis are adding years to the life expectancy of AIDS patients.[24] Earlier use of antiviral therapies is becoming more widespread, and the release of newer agents is imminent. Protocols to monitor and evaluate the efficacy of many of the above-discussed alternative therapies are in place. HIV-related illness is being seen by more physicians

and patients as a chronic infectious disease that can be managed.

Finally, the deep personal healing that many AIDS patients have experienced and the new models of healing envisioned by many AIDS health care providers give us much to be hopeful about. Truly we can all combine our efforts and enable people to live long and live well with AIDS and HIV infection.

References

1. Abrams D. Alternative therapies in the treatment of HIV infection. AIDS File, San Francisco General Hospital. 1989;3(4):1-2.
2. Delany M. Doctor, patient and HIV: Building a cooperative relationship. Project Inform Discussion Paper #3, April 1988.
3. Smith R. AIDS Prevention. J Am Coll Trad Chinese Med 1985;2:20-29.
4. Nutrition Task Force on AIDS, Winick M., Chair. Guidelines for nutritional support in AIDS. Nutrition 1989;5:39-46.
5. Cathcart R. Vitamin C in the treatment of AIDS. Med Hypothesis 1989;14:3423-44.
6. Cathcart R. Personal communication.
7. Fabrias N. AIDS: Zinc deficiency and thymic hormonic failure. JAMA 1988;2:839-40.
8. Alstat E. Natural approaches to viral infection. Med Nutrition 1989;Winter:40-43.
9. Abstracts of International Conference on AIDS, Montreal 1989. MCP18, C608, C626, C501.
10. Gustafson K R, Cardellina J, Fuller R et al. AIDS-Antiviral Sulfolipids from Cyanobacteria (Blue Green Algae). JNCL 1989;Aug 16:1254-58.
11. Bennett B. Drugs that Suppress Immunity. Am Health 1989;Nov:43-45.
12. O'Conner T. Living With AIDS. San Francisco: Corwin, 1987: 274.
13. Rigsby L. The Effect of Exercise and Counseling on the Physiological Psychological, and Immune Functions in HIV Positive Individuals. Presentation at the American College of Sports Medicine Conference, 1989.
14. Spiegel D. Effect of psychosocial treatment on survival of patients with metastatic breast cancer. Lancet 1989;Oct 14:888-891.
15. Siegel B. Peace, Love and Healing New York: Harper and Row, 1989.
16. Siegel B. Love, Medicine, and Miracles. New York: Harper and Row, 1986.
17. Kubler-Ross E. On Death and Dying. New York: Macmillan, 1969.
18. Kubler-Ross E. AIDS: The Ultimate Challenge. New York: Macmillan, 1987.
19. Hay L. The AIDS Book: Creating a Positive Approach. Santa Monica: Hay House, 1984.
20. Hay L. You Can Heal Your Life. Santa Monica: Hay House, 1984.
21. Jampolsky G. Love is Letting Go of Fear. Milbrae, CA: Celestial Arts, 1979.
22. Simonton C. Getting Well Again. New York: Bantam, 1980.
23. Abrams D. Alternative therapies in the treatment of HIV infection. AIDS File 1989;3(4):1-2.
24. Rotenberg R. Survival with the acquired immune deficiency syndrome. N Engl J Med 1988;317:1297-1302.

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Living Long and Living Well: The Role of the Physician's Attitude

Donald M. Pachuta MD

Dr. Pachuta, a practitioner in internal medicine and infectious diseases in Baltimore, organized and created two international conferences devoted to making living long and living well with AIDS and HIV-1 infection an idea whose time has come.

As caregivers we need to examine and perhaps challenge our attitudes and beliefs, to stimulate discussion of new therapeutic strategies, and to consider what we can do individually and collectively to help combat the epidemic of HIV-1 infection. To do this, I have asked a series of questions (at times in this epidemic we've asked the wrong questions) and will attempt to answer them, perhaps in ways different from what you have heard or read or from the commonly held beliefs in medicine and society.

In preparing this article, I talked to some of the authors quoted in the references. It is clear that some of them (like myself), looking at the same data, view the cup as half full. We have been disappointed at how many of our colleagues have seen the same cup as half empty.

"AIDS does not inevitably lead to death, especially if you suppress the cofactors that support the disease. It's very important to tell this to people who are infected. Psychological factors are critical in supporting immune function. If you suppress this psychological support by telling someone he's condemned to die, your words alone will have condemned him. It simply isn't true that the virus is one hundred percent fatal. If you lead a normal life - sleep regularly at night, avoid alcohol, coffee, and tobacco - your immune system could perhaps resist the disease for ten or fifteen years. By then we might have found an effective therapy. The CDC statistics are biased. They're based on a single homosexual population (San Francisco) with a lot of cofactors aiding the disease."

Luc Montagnier MD

Does everyone exposed to human immunodeficiency virus type 1 (HIV-1) become infected? Although most people answer this question affirmatively, the true answer is a resounding **NO**. I am continually surprised by people who test seronegative despite many exposures.

Dr. Luc Montagnier, co-discoverer of the AIDS virus and a Nobel Prize candidate, says:

> The AIDS virus plays the role of a lion hunting a troop of gazelles. It will bring down only the weakest among them.... The virus searches for favorable terrain in which to establish itself. It creates an epidemic in territory already prepared by the cofactors.... Not only the establishment of the virus but also its transmission is aided by these cofactors.... The fact that someone becomes seropositive for AIDS might itself be associated with cofactors. It's not easy to become seropositive.[1]

Dr. Robert Gallo, the other co-discoverer of the AIDS virus, and also a Nobel Prize candidate, agrees.[2] They and other authors[3-5] discuss multiple strains of HIV-1 with differences in infectivity and virulence as well as host response and cofactors.

In Los Angeles, Imagawa and his colleagues studied 133 homosexual men (selected because they continued to engage in sexual activities that put them at very high risk for HIV-1 infection) who tested antibody negative.[3] Only 31 (23 percent) of these

men grew HIV-1 on culture, and 27 remained seronegative up to 36 months.

This study raises some doubt about the definition of HIV-1 infection. The authors conclude that a prolonged period of latency may be much more common than previously realized. They suggest that some people may harbor this virus and never seroconvert or never get ill. They also point out that it is possible for an individual to be infected more than once with different strains of HIV-1 but only seroconvert with a strain competent to replicate (replication in blood is thought to stimulate antibody production). The four men in their study who seroconverted may well have converted from reinfection with a different strain of virus than the original positive culture. At this point there is no way to tell the percentage of HIV-1 infection that does not stimulate measurable antibody. In the future, the routine measurement of provirus particles will help.

These investigations raise some very important questions. If HIV-1 is in a latent state, what activates it to replicate in blood, as well as what stimulates it in asymptomatic seropositive individuals to produce the clinical disease AIDS? Despite very-high risk sexual behavior 77 percent of these men remained antibody and HIV-1 culture negative. Dr. William Haseltine calls it "good news" that the "replication of HIV-1 may be spontaneously suppressed by a combination of cellular, viral, and immune mechanisms in far more people than have been supposed."[4] He further states it is therefore possible to suppress the expression of the virus with drugs and induce a prolonged remission of viremia in seropositive patients, and that such treatment-induced remissions would be very good news indeed. Furthermore, immunocellular mechanisms might control the infection for a period of time without continued treatment.

These authors may have demonstrated for the first time in the AIDS epidemic a true carrier state whereby an individual with an organism is apparently not harmed, although the degree of infectivity or transmissibility is unknown.

Transfusion Data

We would expect virtually 100 percent infection in blood transfusions because of a rather massive intravenous dose of virus. Yet this is not the case. Cumming *et al.*, while demonstrating an increasing risk in relation to the number of random donors and total units of blood or blood products, nevertheless comment on the "less than 100% efficiency of transmission."[6]

Ward and associates investigated the natural history of transfusion associated infection with HIV-1.[7] Many people quote this report to show a 95 percent incidence of HIV-1 infection from blood transfusions. Even if that is true, 5 percent of the people directly transfused with this virus did not become seropositive and somehow cleared it with their own immune system. That this is even possible has not been emphasized.

Let us examine the origin of the 95 percent figure. In this epidemic, many important statements have been made from tiny numbers. Of 765 recipients transfused with blood components from HIV-1 positive donors, 694 with medical records were entered in the study. Of these 694 patients 437 (63 percent) had died, 16 of whom had been HIV-1 seropositive or had AIDS. Of the 257 living recipients, 203 were evaluated for HIV-1 infection and 119 (59 percent) were HIV-1 seropositive or had AIDS. The seronegatives were not included in the statistics because of uncertainty about donor status when they received blood. (They could have been transfused when the donors were still antibody negative or when they had no virus in their blood. Their exclusion is a mystery since one might expect a random distribution. Including even a few of these patients would drastically lower the 95 percent figure.) One thing clear from this study is that the worst risk factor in the recipients was the time that the donor developed AIDS. The sooner the donor developed AIDS after the donation the more likely and faster the recipient would do the same. Beginning with 694 patients this study ended with only 38 living recipients of blood from donors who had earlier donated to recipients who became HIV-1 seropositive included. Of these, 36 (or 95 percent) were HIV-1 seropositive or had AIDS. It is clear that not every transfusion recipient got HIV-1 infection from contaminated blood. In this study only 119 of 203 living recipients (**59 percent**) were HIV-1 positive or had AIDS.

The data on health professionals is well known. The statistical risk of contracting HIV-1 infection from needle stick and other exposures is between 0.1 and 0.5 percent per exposure. However, in those health care workers who are seropositive, the infection was clearly related to the depth of penetration as well as size of inoculum. There has been no HIV-1 transmission to a surgeon or other physician doing invasive procedures (or from a doctor to a patient) despite numerous needle sticks, splashes of blood, and secretions.

Why doesn't everyone exposed to HIV-1 become infected? Perhaps the "favorable terrain" plays a role. Who are "the weakest?" When investigators discuss cofactors, they usually confine themselves to biological ones, for example, other viruses. Chaisson *et al.* identified cocaine use as a risk factor for HIV-1 infection in IV drug users,[8] and Dr. Stanley Weiss discusses the paramount importance of this study in an accompanying editorial.[9] Dr. Montagnier, Dr. Gallo, and many other distinguished scientists believe psychological factors are major cofactors, not only in susceptibility to infection with the virus but also in the development of AIDS once infected.

The role of other possible psychological, emotional and chemical cofactors (stress, fear, the effects of alcohol, cigarette smoking, and recreational drugs) has been all but ignored despite our knowledge about their immunosuppressive effects.

Garry *et al.*, documenting an AIDS virus infection in the United States in 1968, raises a great many questions about the spread of the epidemic.[10] Dr. Montagnier says that this and other retroviruses have been around a long time and that it is not the virus that has changed its basic configuration over the years but the behavior of its host.[1] Dr. Gallo likewise agrees on the importance of cofactors accelerating not only initial infection but also progression to AIDS.[2] We would do well to embark on research studies investigating these various cofactors, but more important, we should make this part of our daily conversation as we practice medicine.

Is everyone infected with HIV-1 destined to get AIDS? Again most people will answer yes, but that is not fact; at best it is a hypothesis or a projection and a classic example of half-full and half-empty cups. Based on everything discussed so far and below, the answer should be an emphatic **NO**. Dr. Gallo believes that present evidence shows a minority of HIV-1 infected individuals develop AIDS, and this is what we should be telling people. He says we have no evidence that all HIV-1 infected persons develop AIDS and that studies on the effect of altering cofactors are lacking. He further states that the true answer to many of these questions may be "I don't know" and that we should only say what we know for sure. He strongly believes that we as scientists should not make statements of prediction without proof. He reminds us that the definition of AIDS is man-made by CDC.

All of the projections are based on an extremely biased cohort from San Francisco (studied because the time of HIV-1 seroconversion was fairly well approximated). Not knowing they were infected, this group of men did not alter their sexual behavior or lifestyle for several years. They continued to engage in high-risk sexual behavior, a high-paced lifestyle including alcohol, smoking, and recreational drugs, which did not help their immune system. Despite all this, at the end of ten years *only a minority of these individuals have developed AIDS.* We should be shouting this good news to the whole world and to each patient we see. If only 48 percent of these individuals developed AIDS after a decade of being HIV-1 seropositive, without early change in behavior, the possibilities are legion of altering the outcome considerably by changing attitude, lifestyles, and behaviors.

It is our duty to emphasize the fact that the majority of these individuals (52 percent) do not have AIDS after ten years. Other data also show promise. In the study of Ward *et al.* life-table analysis "suggested" AIDS will develop in 49 percent of infected transfusion recipients within seven years after infection.[7] Dr. Jay Menitove remarks that this is considerably longer than any previous estimate.[11]

The data in hemophiliacs is even more encouraging. Eyster *et al.* in a study of predictive markers in hemophiliac patients found an actuarial cumulative incidence of AIDS of only 26 percent eight years after antibody seroconversion.[12]

The study by Goedert *et al.* is the first to use statistical estimates that do not depend on the assumption that AIDS will eventually develop in all infected persons.[5]

These investigators show that the annual incidence of AIDS during the *eighth year after seroconversion was only 7 percent* and that the actuarial cumulative incidences of AIDS *nine years* after HIV-1 infection is *only 25.1 percent.* Further these authors showed a marked difference with age, so that for children and teenagers, the cumulative incidences after *eight years was only 13.3 percent* and *26.8 percent for people ages 18 to 34.* Unfortunately, there was a higher incidence of 43.7 percent for people ages 35 to 70. They concluded that we need to identify the reasons for the relatively long-term AIDS-free survival. They asked some very important questions: for example, how do children and adolescents control HIV-1 replication for relatively long periods? This subgroup had a substantially lower incidence of AIDS even though they lost the antibody P24 antigen (which usually correlates with the onset of AIDS but didn't here), suggesting much better tolerance of replicating HIV-1. They likewise concluded that basic mechanisms that exist to control the virus or limit its damage may be operative. They point out that children, adolescents, and younger adults may tolerate severe immune deficiency better because they have fewer other infections or because of some unmeasured age-dependent cofactor or immune alterations later in the disease.

Their study overlooks some basic issues such as the fact that the children and adolescents are much less likely to smoke, drink alcohol, use cocaine, nitrates (poppers), and other recreational drugs, lead a fast-paced life, engage in high-risk sexual behavior, and that young adults, even while doing some of these activities, may not have done them long enough to show damage from them. Ranki *et al.*[13] proposed a long latency preceding seroconversion as mentioned in the study of Imagawa *et al.* [3] This and the long time it takes to develop AIDS after seroconversion (for those who do) have profound implications for the prevention of AIDS in people with HIV-1 infection.

One great tragedy of this epidemic is that so many HIV-1 positive people are told by a physician (sometimes over the telephone) that it is a death sentence. Physicians' words have condemned them. This is despite an average AIDS onset of more than 10 years after HIV-1 infection and Dr. Montagnier's statement that one can live 10 to 15 years with the disease AIDS by controlling cofactors. No test is ever a death sentence.

I have seen many individuals get sick after hearing such news and even a few develop acute *pneumocystis carinii* pneumonia. We should be telling all these patients that the odds are that in ten years after seroconversion, they will not have AIDS. We should be asking them what they would like to do for the next ten years or more of their lives.

The real question for HIV-1 infected individuals should be: What can be done mentally, physically,

emotionally, and spiritually not to get AIDS over the next 5, 10, or 50 years? My initial conversation with these patients starts with this question and includes discussions of attitudes, nutrition, sleep, exercise, lifestyle, stress, fear, anger, guilt, spirituality, and optimism to plan for the future. I talk frankly about alterations in sexual or drug behavior. I refer them to group or psychological support and to complementary therapies that work. Above all I encourage people to continue working and living life. Life is much more important than death. What do we have to gain by our pessimism?

Does everyone with AIDS inevitably die of it? The answer is a resounding **NO**. Once again the co-discoverers of the AIDS virus are in agreement. Dr. Montagnier's quote at the beginning of this article speaks for itself. Dr. Gallo says that no microbe is 100 percent fatal – not tuberculosis, the great plague, smallpox, nor the great pox (syphilis).

However, in both medical and other literature, we constantly hear words like "deadly," "grim," "hopeless," and dozens of other extremely negative words. If something is repeated again and again, it becomes truth for you. One need only to read literature from concentration camps survivors[14] to appreciate this point.

Dr. Gallo says that predicting a 100 percent mortality rate is unscientific and causes a sense of hopelessness, giving up, depression, and even suicide.[2] Dr. George Engel wrote on the giving-up/given-up complex and its role in disease and mortality.[15,16] All of us know the value of a fighting spirit in our patients. Why do we take it away so often in this epidemic?

Could our fatalistic attitude create disease and spread the epidemic? Too many patients continue to engage in high-risk behavior. Their attitude is that since they were told they were going to die anyway they might as well enjoy themselves and live it up.

Before predicting, we should realize there is a difference in pathogenicity between HIV-1, HIV-2, and HTLV-1. Both co-discoverers of the HIV-1 say there are variations of the HIV-1 virus.[1,2] HIV-2 has been found in 80-year-old former prostitutes; clearly they have had it for a long time. It does not appear to be virulent, just as HTLV-1 does not appear to cause a lot of leukemia. So too, there may be a great difference in the virulence and pathogenicity of *different* strains of HIV-1. How can we know which strain our patient has just from the antibody test?

I (as well as Dr. Gallo and others) have seen dozens of long-term AIDS survivors who are alive and well. Some of them have had it since the beginning of the epidemic. I met a man who was sent home to die in a few months with AIDS and progressive multifocal leukoencephalopathy (PML). He had dementia, was nearly blind, and could barely walk and talk. He is completely well nearly five years later. When he went home to die, all his mother did was love him; apparently that stimulated his immune system. No one has survived PML with AIDS for more than a few months, but here is an outstanding example. He had to plead with physicians to be studied by researchers. He persisted, and eventually his case was published.[17]

Lon Nungesser, author of two books,[18,19] was given a death sentence in 1983 because of 14 Kaposi's sarcomas on his body. He is alive and well with no lesions, no illness, and with no traditional medical therapy. He says,

> A diagnosis is an event to be adapted to, not a death sentence to be compliant with. I have offended a lot of doctors being alive. Now they are starting to call me and ask for my advice.[19]

Other long-term survivors of AIDS or advanced AIDS related complex (ARC) have written books that are quite inspiring.[20] The book by George Melton and Wil Garcia[21] is something I give every new patient with HIV-1 infection.

I have met three people diagnosed with ARC who are not only asymptomatic years later but have reverted the HIV-1 antibody test from positive to negative. Again these people hounded their doctors to study them and gave up in frustration that no one was interested. (There is one other study of antibody reversion in the literature, but the significance in those patients was not known at the time.[22])

The most dramatic evidence that there is something more than the virus in operation took place in Washington, DC in February 1989. Nine long-term survivors of AIDS participated on a panel at a conference, Defying the Odds. Living Long and Living Well - A Case For Optimism. Each used *different* therapies. Some were taking traditional medications such as AZT and acyclovir. Others took medication that is considered ineffective, such as dextran sulphate, while some only practiced guided imagery, nutrition, or spiritual work. The audience of over 600 people was especially moved listening to the feisty, fighting spirit of one woman with transfusion-induced AIDS (after conquering stage IV, Hodgkins' Disease) and a T-4 count of 2.

There is also a drastic difference in mortality rate between the east and west coasts of the United States. In Maryland the median survival time of AIDS is approximately 42 weeks; in California it is several times greater. What the people on this panel of long-term survivors and most people on the west coast have in common is taking charge of their disease and not being victims watching their T-4 count drop, waiting to get sick or die.

Does the T-4 (CD-4) cell count determine what happens to you or your immune system or do you determine what happens to your cell count as well as to your immune system? It is almost scientific dogma that the T-4 (CD-4) count determines the outcome of an individual's health, life, and progression to AIDS. However, there are no dogmas in medicine.

The study of Eyster *et al.* points out the nonspecificity of the T-4 count because many infected

individuals with low T-4 counts do not develop AIDS within the next two years.[13] However, since the data first became available from the study of Masur *et al.*[23] the T-4 count has been held with fervor as a predictor of AIDS in people who are HIV-1 seropositive and had T-4 counts under 200. Their data is widely quoted, has been widely acted upon, and yet it demonstrates that after 18 months *only one third* of the patients who were HIV-1 seropositive developed PCP. Again the cup is half full or half empty. Fully *two thirds of the patients do not develop PCP* within a year and a half. Would it not be better to try to identify which third and what other factors or cofactors may contribute to progression to AIDS? Again, none of these studies were controlled for sexual behavior, smoking, drug use, alcohol intake, etc.

As we rush to "do something" in an epidemic that we ourselves have declared hopeless, are we exposing everyone to significant short-term toxicity, the risk of viral resistance, and possible long-term toxicity to prevent the one third from developing PCP? Would preventing PCP by means other than AZT suffice? Dr. Masur has pointed out the extensive use of aerosol pentamidine despite the paucity of carefully analyzed and published data about its long-term efficacy and toxicity.[24]

We haven't questioned why there is such a tremendous mortality rate of PCP in people with HIV-1 infection (anywhere from 20 to 40 percent in the first episode and 1.5 to 2 times greater in subsequent episodes). The PCP mortality is far less in cancer patients with profound leukopenia after chemotherapy. Could it be they simply do not have a belief system that they are supposed to die, and and therefore they don't? I have seen a number of patients with single digit T-4 counts who are perfectly well. I have seen many more with T-4 counts under 50 who are likewise perfectly well. Obviously, patients who have counts of two, four, or seven T-4 cells per cubic millimeter and are perfectly well are operating their immune system in some way different from what we expect. Dr. Bernie Siegel discusses a patient who clinically improved while the T-4 count dropped.[25]

Again in our rush to do "something," many physicians have adopted as scientific the NIH data on AZT prophylaxis in asymptomatic HIV-1 seropositive men. This data has not heretofore been published in another medical journal for appropriate peer review. That is acknowledged by Bartlett (p. 150), Chaisson (p. 156), and Zurlo and Lane (p.161). They and other authors[24] urge caution until these data are published and even more caution in patients whose T-4 count is above 300. Indeed Masur *et al.* found only 2 of 100 patients with a serious opportunistic pneumonia at a time when the T-4 count was greater than 200.[23] Furthermore, it is difficult to do a placebo vs. AZT study because subjects taking AZT know they are on the drug. The Heisenberg principle of uncertainty states that the observer is always part of the experiment.

Yet, despite what is only a newspaper report at present, physicians throughout the country are rushing to prescribe AZT and are excited because these studies presumably showed no toxicity at a lower dose of 500 mgm per day. We are acting as though we have found the cure.

In addition to the long-term toxicity of AZT, which has not been studied in this group, the down side described by the above authors is the potential for viral resistance. There is also enormous expense involved. We may be using this drug too freely at a time when we should be reserving it for its clear benefit on mortality in patients diagnosed with AIDS. Initially it was thought that the survival benefits were exhausted with long-term AZT therapy of AIDS, but a recent study by Fischl *et al.* has demonstrated continued survival benefits.[26]

The above studies are not without controversy.[27,28] Dr. Bartlett has written several reasons not to rush to adopt this therapy (p. 154).

Once again we are making major determinants of public policy, treating patients, planning enormous expenditures of funds based on very tiny numbers. Is it possible we are treating this disease differently from others? Does holding AIDS as uniformally fatal cloud our usual scientific scrutiny? Have we rushed our research process at the risk of true scientific data? Have we bowed to pressure from the public to do so? In our quest for a "magic bullet" have we forgotten our role in educating patients and practicing the art of medicine with people?

Are we treating our own anxieties?

Do the mind, emotions, and spirit affect the body? We know from personal experience the answer to this question is yes, whether or not it can be demonstrated in a double-blind controlled study. The psychiatric literature from Freud to the present day are replete with that information. Carl Jung said that all illness from young adulthood onward is illness of the spirit and we must treat the spirit if we are to affect the illness.

We are aware of the power of the placebo. Dr. Eugene Brody expressed it best when he said, "Every pill prescribed by a physician has his or her signature on it."[29] We need to look at the ways in which that happens and how we and the patient might intervene. We have a long heritage of this in Western medicine and in the 5,000-year-old systems of oriental medicine.

Does the attitude of the physician, care giver, or society as a whole affect the infectivity and the progression from HIV-1 seropositive to the clinical disease AIDS? Clearly, attitudes of caregivers affect patients. Dr. Bernie Siegel has documented numerous cases of this in his two best selling books.[25,30]

It is sad that many patients with cancer and HIV-1 infection are totally depressed and ready to die when they need not. All too many patients die on cue. A patient was told by a physician that he would go into a coma in two months, go downhill, and die. Despite the fact that he responded well to chemotherapy and radia-

tion and was mowing his lawn two days before, when that two-month anniversary came, he did exactly as he was told. Siegel says this occurs with 15 to 20 percent of cancer patients.[25]

The attitude of the medical and scientific community and society at large toward this epidemic has been negative.

In 1984 an Assistant Surgeon General talked about two epidemics - AIDS and fear. He said that at some point we will get a handle on the epidemic of AIDS but wasn't so sure that we would ever get a handle on the epidemic of fear. Indeed, fear is a major aggravating factor in this epidemic. The prize winning article in Medical Economics this year was "How many patients will die because we fear AIDS."[33]

Physicians seldom discuss emotions, attitude, lifestyle, diet, sleep, exercise, alcohol, tobacco, caffeine, recreational and other drugs, etc. with cancer and HIV-1 patients. Certainly the attitude of the physician and the patient effect the outcome in all diseases.

The problems of physicians in this epidemic, discussed in a number of papers, include fear, homophobia, hopelessness, dislike of the patient population, ethical and moral dilemmas, lack of education, and discrimination.[31-33]

We have come a long way since I took care of my first patient who died of AIDS: there was not a funeral director available in this state who would bury the man. However, we have a long way to go. In *Patient Care*[34] Dr. William Schlotterer discusses his journey in caring for people with AIDS in his community. He talks about his struggle with his fears and the fears of his wife, his decision to treat people with HIV-1 infection and taking over 150 hours of continuing medical education on issues relating to AIDS, including a month at the AIDS Provider Education Experience at San Francisco General Hospital Medical Center. He has cared for approximately 45 HIV-1 infected patients since 1984, 35 of whom are still living as of this writing.

He laments the fact that during the last six months his patients have been refused bronchoscopy, surgery, biopsy, dental care, and other procedures and consultations. In one particular week, six physicians refused even to consult with him on patients simply because of their HIV-1 positive status. He emphasizes physicians' resistance including homophobia, fear of contagion, lack of competence, and our own mortality. He points out, as other have, that this puts us face to face with death and creates a lot of anxiety.

What can we do to make living long and living well an idea whose time has come? We can remember our heritage and training as physicians and scientists, that medicine is an art as well as a science and that the word doctor means teacher. There is no substitute for proper medical diagnosis and treatment, although there may be some debate about what constitutes appropriate therapies. I have seen patients placed on AZT without an HIV-1 antibody test and others with T-4 counts over 700. We must remember that the most common infection occuring in people who are HIV-1 positive is the common cold, and in the northeast, sinusitis, not PCP.

Among the tragedies of this epidemic are people misdiagnosed as AIDS because they respond to IV trimethoprim-sulfamethoxazole, without proper diagnosis of PCP by induced sputum or bronchoscopy. Also, a benign, self-limiting interstitial pulmonary disease has been described.[35] Other patients after a "million dollar" fever workup for exotic diseases, turned out to have bacterial sinusitis and responded to penicillin or erythromycin. Unfortunately, the delay in diagnosis and treatment has caused some patients to progress to abscess formation, bronchitis, pneumonia, and other serious complications. The untreated simple bacterial infection may further suppress and weaken the immune system leading to acute PCP. I have seen this sequence a number of times.

Whether you believe that fear is a major cause of death in AIDS because of the immune suppression it induces, at least consider it as a possibility, and consider your words. The doctor speaks with an authority akin to that of God. Know that your words alone can condemn people to unhappiness, sickness, and death or give them hope, confidence, and self-esteem.

HIV-1 infected patients are extremely frightened and have very low self-esteem; whatever we can do to elevate their self-esteem and diminish their fears will be healing and therapeutic. Healing means is to make whole, not just cure disease. In the words of William Osler, "The job of the physician is to cure rarely, to treat seldom, to comfort always." All people are entitled to no less than the very best care we have to offer.

We could consider doing different things in our offices, such as moving from behind our desks so there is nothing between us and the patient. (This helps communication with all patients). Perhaps we should let patients call us by our first name. Perhaps we should share our own mortality with our patients. It might make us more human to them and reverse some of the criticism of our profession. Perhaps we should even do the unthinkable and hug our patients and let them hug us or at least put our arm around their shoulders as we greet them. I suggest developing a series of optimistic handouts for patients with HIV-1 infection, cancer, and other life-threatening illness.

Many patients harbor years or even decades of guilt. Some in their unconscious accept that they deserve sickness and death. Help them either personally or through referral to explore their anger, grief, fear, guilt, etc. One patient who is a long-term survivor said that he survived because he decided to leave his grief behind.

Stimulate people to go on whatever spiritual journey they are able. For most of us the fundamental questions of life are, *"Who am I?"* and *"Why am I here?"* All long-term survivors have used AIDS as an opportunity to embark on a spiritual journey. They also have taken charge of their life, health, and well-being. Be patient with them.

Educate yourself as much as possible and participate

in the education of your community. There is no reason to have an epidemic of fear. As a community of physicians, research scientists, and health care providers we are in the best possible position to combat it.

Examine complementary or alternative therapies with an open mind. Many patients improve and obtain relief of suffering with visualization, mediation, imagery, acupuncture, nutritional therapies, etc.

Above all, be optimistic. Educate the patient that instead of either beating the virus or the disease now versus dying now, they have many years of living well to anticipate. There are new and optimistic articles all the time.[36] One of the most important just debunked the myth that almost all HIV-1 infected patients get dementia and that asymptomatic, healthy patients frequently had impaired mental functions. McArthur *et al.* have discovered only one man out of 270 asymptomatic, HIV-1 positive healthy people with mild HIV-l dementia.[37]

If you believe long-term survival is possible, you can counsel HIV patients about lifestyle as you do all your patients. I think proper nutrition and maintaining weight are critical to treatment. You can avoid the cruelty of compulsively waking patients in the middle of the night (who desperately need their sleep) to take a dose of AZT because some study did it that way. Most patients never did anyway but suffered needless guilt over it. Let your common sense prevail.

You can be optimistic about the positive affect of drugs. People can take AZT without toxicity; many long-term survivors do.

Of all the things that I teach people, they are most grateful for something that occurs in the first visit. I ask them to have it be okay with them to be here and alive; to be okay how ever they are (physically, mentally, emotionally, and spiritually, including being gay or an IV drug user), and then have it be okay to have the virus. That level of acceptance ends a great deal of conflict and the fear generated by it, which helps enormously in inner healing and eliminating that aspect of immune suppression.

A good analogy is to tell every person with HIV-1 infection that AIDS is a fifteen-round bout, and they have to make a commitment to go the distance. If they give up and die in the first round, which is the first episode of PCP or AIDS defining diagnosis, they will have missed a great deal. I think many people make up their mind to live or die before they ever get the first episode of PCP. There is a fatalistic "let's-get-it-over-with" syndrome in many patients who anticipate ultimate death from HIV-1. We must recognize this and trust it appropriately. Another analogy is a tightrope across Niagara Falls. As long as they remember the rope, they can get to the other side and enjoy the scenery in the process. If they forget the rope the consequences can be illness or death. They need to stay in focus and concentrate on healing themselves first.

Most of all we can show our patients and society that we are unafraid and respond as we have responded in previous epidemics for thousands of years. We were not afraid of epidemics such as tuberculosis, diphtheria, and polio, all of which were far more contagious and transmissible than HIV-1. Why should we be afraid of this virus?

References

1. Montagnier L. Interview. Omni 1988;Dec:102.
2. Gallo RC. Personal communication.
3. Imagawa DT, Lee MH, Wolinsky SM et al. Human immunodeficiency virus type 1: Infection in homosexual men remain seronegative for prolonged periods. N Engl J Med 1989;320:1448-52.
4. Haseltine WA. Silent HIV infections. N Engl J Med 1989;320:1487-89.
5. Goedert JJ, Kessler CM, Aledort LM et al. A prospective study of human immunodeficiency virus type 1: Infection and the development of AIDS in subjects with hemophilia. N Engl J Med 1989;321: 1141-48.
6. Cumming PD, Wallace EL, Schorr JB et al. Exposure of patients to human immunodeficiency virus through the transfusion of blood components that test antibody-negative. N Engl J Med 1989;321:941-46.
7. Ward JW, Bush TJ, Perkins HA et al. The natural history of transfusion-associated infection with human immundodeficiency virus. N Engl J Med 1989;321:947-52.
8. Chaisson RE, Bacchetti P, Osmond D et al. Cocaine use and HIV infection in intravenous drug users in San Francisco. JAMA 1989;261:561-65.
9. Weiss SH. Links between cocaine and retroviral infection. JAMA 1989;261:607-609.
10. Garry RF, Witte MH, Gottlieb AA et al. Documentation of AIDS virus infection in the United States in 1968. JAMA 1988;260:2085-87.
11. Menitove JE. The decreasing risk of transfusion-associated AIDS. N Engl J Med 1989;321:966-68.
12. Eyster ME, Ballard JO, Gail MH et al. Predictive markers for the acquired immunodeficiency syndrome (AIDS) in hemophiliacs: Persistence of antigen and low T-4 cell count. Ann Intern Med 1989; 110:963-69.
13. Ranki A, Valle SL, Krohn M et al. Long latency precedes overt seroconversion in sexually transmitted human immunodeficiency virus infection. Lancet 1987;2:589-93.
14. Frankel V. Man's Search for Meaning. New York: Touchstone, 1984.
15. Engel GL. A life setting condusive to illness: the giving-up-given-up complex. Ann Intern Med 1968;69(2):293-300.
16. Engel GL. Emotional stress and sudden death. Psychology Today 1977; Nov:____.
17. Berger JR, Mucke L. Prolonged survival and partial recovery in AIDS-associated progressive multifocal leuko-encephalopathy. Neurology 1988:1060-65.
18. Nungesser L, Bullock D. Notes on Living Until We Say Goodbye. New York: St. Martins Press, 1988.
19. Nungesser L. Epidemic of Courage: Facing AIDS. New York:St Martins Press, 1986.
20. Callan M. Surviving and Thriving with AIDS: Collected Wisdom, Volume II. New York: PWA Coalition, 1987.
21. Melton G, Garcia W. Beyond AIDS: A Journey Into Healing. Beverly Hills: Brotherhood Press, 1988.
22. Farzadegan H, Polis MA, Wolinsky SM et al. Loss of human immundeficiency virus type 1 (HIV-1) antibodies with evidence of viral infection in asymptomatic homosexual men: A report from the multicenter AIDS cohort study. Ann Intern Med 1988;108:785-90.
23. Mazur H, Ognibene FP, Yuarchoan R et al. CD-4 counts as predictions of opportunistic pneumonias in human immunodeficiency virus (HIV-1) infections. Ann Intern Med 1989;111:223-31.
24. Mazur H, Lane HC, Kovacs JA et al. Pneumocystis pneumonia: From bench to clinic. Ann Intern Med 1989:111:813-26.
25. Siegel B. Peace, Love and Healing. New York: Harper and Row, 1989.
26. Fischl MA, Richman DD, Causey DM et al. Prolonged

zidovudine therapy in patients with AIDS and advanced AIDS-related complex. JAMA 1989;262:2405-10.
27. Higgins LC. Early intervention study leaves questions on AZT. Med World News 1989;Sep 11:31.
28. Lipman BJ, Dobkin JF. The expanding role of zidovudine. Infect Med 1989;Nov:207.
29. Brody EB. Personal communication.
30. Siegel B. Love, Medicine and Miracles. New York: Harper and Row, 1986.
31. Wake WT. How many patients will die because we fear AIDS? Med Econ 1989; March 20:24-30.
32. Osborne JE. AIDS: Politics and science. N Engl J Med 1988; 318: 444-47.
33. Cooke M, Sande MA. The HIV epidemic and training in internal medicine. N Engl J Med 1989;321:1334-38.
34. Schlotterer W. Primary care for those with AIDS. Patient Care 1989;Nov 15:15.
35. Suffredini AF, Ognibene FP, Lack EE et al. "Nonspecific interstitial pneumonitis: A common cause of pulmonary disease in the acquired immunodeficiency syndrome. Ann Intern Med 1987;107:7-13.
36. Chaisson RE. Living with AIDS. JAMA 1990. In press.
37. McArthur JC, Cohen BA, Selnes OA et al. Low prevalence of neurological and neuropsychological abnormalities in otherwise health HIV-1 infected individuals: Results from the multicenter AIDS cohort study. Ann Neurol 1989;26:601-11. ■

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Another Look at the Data

John G. Bartlett MD

Attitudes of the physician and the patient do have an important bearing on the patient's quality of life with any disease process. However, we do not want to deny the use of various therapeutic agents that, on the basis of well-controlled clinical trials, have demonstrated benefit.

Dr. Pachuta is to be commended for providing a provocative commentary regarding HIV infection. In essence, he has challenged commonly accepted dogma with insightful views. This type of exchange is viewed as healthy, especially for a disease that has been known for only eight years and where we have so much to learn. There are, however, components of the discussion of physicians' attitudes that require comment.

The first point made is that everyone exposed to HIV does not become infected. This is true of virtually all infectious diseases, and it certainly applies to HIV as well. The efficiency of transmission with needle-stick injury appears to be approximately 0.4 percent, with transfusion of contaminated blood about 90 percent, and for perinatal transmission it is 25 to 33 percent. These figures are well verified. For sexual exposure, there are no good data for obvious reasons, but we do know that the frequency of seropositive tests in the wives of men with hemophilia is usually reported at a surprisingly low rate of 10 to 20 percent. Thus, it is easy to endorse the first point. All who have studied this disease agree that HIV is inefficient in transmissibility.

The second point raised concerns the destiny of those who have become infected with HIV. This is more controversial. The optimistic impression that progression is not inevitable is supported only by anecdotal cases. Three very large natural history studies dealing with HIV infection in gay men and transfusion recipients all show that the average time from the point of infection to an AIDS-defining diagnosis is 8 to 12 years.[1-3] HIV infection can be traced in the United States to 1978, so that approximately half those who were infected in the very early stages of the epidemic are likely to lack an AIDS-defining diagnosis. Thus, we would expect there to be thousands of patients who are living long and healthy lives despite HIV infection. But what is unknown is the ultimate destiny of these individuals. Immunologic studies show progressive declines in the CD-4 cell counts indicating immunosuppression, a depressing finding because it means that many or most will eventually develop progressive, symptomatic disease. This is obviously unsettling for the physician, but it is probably important to know for purposes of counseling patients and of planning management strategies.

A further question posed concerns the factors that influence this progression. The natural history studies cited above indicate that approximately 2 percent of patients develop an AIDS-defining diagnosis within two years following seroconversion, whereas others remain apparently well except for laboratory evidence of immunosuppression as long as ten years. This variation in biologic expression of infectious diseases is something we are accustomed to. Some feel that this is strongly influenced by our attitude toward the disease and the message that we give to patients. Others have implicated various co-factors that admittedly have been elusive to define. David Baltimore, in a recent editorial, concluded that the most important factor was virus-specific cytotoxic T lymphocytes.[4] In all probability, the factors that dictate disease progression are multifactorial.

Another concern relates to the CD-4 cell count as an indicator of immunosuppression. This is the major target cell for HIV infection, so there is a certain logic in the association between CD-4 cell count, level of viremia, and the degree of immunosuppression as expressed with opportunistic infection. Studies supporting this association are sufficiently compelling that the National Institutes of Health and the Federal Drug Administration now utilize the CD-4 cell count as the best surrogate marker of immunosuppression for patients with HIV infection. This does not necessarily mean that a patient with a count below 200/mm^3 is destined for *Pneumocystis carinii* pneumonia in the near future; it does imply a 33 percent probability of this infection within the next 18 months.[5]

There is also comment regarding the early use of AZT in patients with HIV infection on the basis of the recent studies conducted by the 35 centers participating in the AIDS Clinical Trials Group,[6] "as though we had found a cure." It should be noted that we are not aware of anyone who is talking about a cure in this disease, although there is considerable enthusiasm about early intervention not only with AZT but also with other measures such as PCP prophylaxis. These decisions are criticized as "major determinants of public policy, treating patients, planning enormous expenditures of funds based on very tiny numbers." It should be noted that the NIH trial cited included approximately 4,000 participants, the largest clinical trial ever conducted in patients with this infection. The original study that led to FDA approval of AZT included just 282 patients, but the long-term follow-up of the FDA decision to approve that drug in March 1987 has shown impressive benefit not only in terms of prolonged survival but also for reduced frequency of opportunistic infections, reduction in weight loss, improved performance status, delays in the reduction of CD-4 cell count, reduction in p24 antigen levels, and virtually every other parameter measured.[7]

Recent studies [4,8] provide additional support for early use of AZT. A previous concept was that the prolonged period of asymptomatic infection correlated with viral latency, with eventual symptoms representing viral activation. The recent work shows there is no latency but that the virus is replicating throughout the period of infection despite lack of symptoms. In fact, the opinion was expressed that, although the CD-4 cell counts correlate with disease progression, by the time these levels are reduced the damage to the immune system is probably irreversible.[7] The implication is that we should be treating even earlier in the course of this infection at a time when the viral load is low so that resistance is unlikely and the immune system is intact. It is obviously premature to make this recommendation at present, although this is the subject of an ongoing study (conducted by the previously noted consortium of centers) that will ultimately provide the answer as it applies to AZT.

No one will challenge the notion that the attitudes of the physician and the patient have an important bearing on the quality of life of patients with any disease process. At the same time, we do not want to deny the use of various therapeutic agents that have demonstrable benefit on the basis of well-controlled clinical trials. Chemotherapeutic agents along with vaccines account for most of the accomplishments of this century in conquering infectious diseases, and it now appears that HIV has become a treatable disease. The difference, compared to many other infections, is that we have no cure. Most importantly, it is easy to endorse the central theme of this issue, "living long and living well" for patients with HIV infection. Despite the lack of a "magic bullet," meaning no cure is in sight, it does appear that HIV infection is becoming a manageable disease in which we probably can make substantial gains on an already impressive track record of medical management. This prediction is based on the assumption that we will be using more and more therapeutic agents in the early stages of disease in an attempt to retain immunocompetence, inhibit viral replication, and insure a long and healthy life.

References

1. Lifson AR, Rutherford GW, Jaffe HW. The natural history of human immunodeficiency virus infection. J Infect Dis 1988; 158:1360-67.
2. Moss AR, Bacchetti P, Osmond D et al. Seropositivity for HIV and the development of AIDS or AIDS-related condition: Three year follow-up of the San Francisco General Hospital cohort. Br Med J 1988;296:745-50.
3. Polk BF, Fox R, Brookmeyer R et al. Predictors of the acquired immunodeficiency syndrome developing in a cohort of seropositive homosexual men. N Engl J Med 1987;316:61-66.
4. Baltimore D, Feinberg MB. HIV revealed. N Engl J Med 1989;321:1673-75.
5. Centers for Disease Control. Guidelines for prophylaxis against *Pneumocystis carinii* pneumonia for persons infected with HIV. MMWR 1989;38:1-9.
6. Hooper C. AZT trials cut short. J NIH Res 1989;1:36.
7. Fischl MA, Richman DD, Causey DM et al. Prolonged zidovudine therapy in patients with AIDS and advanced AIDS-related complex. JAMA 1989;262:2405-10.
8. Ho DD, Maudgil T, Alam M. Quantitation of human immunodeficiency virus type I in the blood of infected persons. N Engl J Med 1989;321:1621-25.

Response to Dr. Bartlett's Commentary

Donald M. Pachuta MD

I believe there is more involved in progression to AIDS than the virus alone and we can alter outcome by altering these cofactors: habits, emotions, attitudes, and behavior.

The preceding Commentary illustrates well the need for physicians and caregivers to read the literature themselves since the same data have different possible interpretations. A good example of this is the 90 percent (actually 95 percent) transmission of HIV-1 via transfusion. This figure is based on only 38 patients in the study of Ward *et al.* Seronegative recipients were excluded from the data.

While Dr. Bartlett and I agree about 90 percent of the time, there are two areas of difference of opinion.

I believe that not everyone infected with HIV-1 progresses to AIDS. This is supported by the three large natural history studies and the opinion of the co-discoverers of the virus among others. The studies show that a minority of gay men (48 percent) have progressed to AIDS after 10 years. The point is that these men, infected between 1978 and 1981, did not realize their condition (AIDS was not reported until 1981) and did not alter their habits for 3 to 5 years. Still, a minority of this group has AIDS after 10 years. Further, as Dr. Gallo says, most statements about the fate of HIV-1 individuals are based on computer projections, not data.

I believe (and Drs. Montignier and Gallo agree) there is more involved in progression to AIDS than the virus alone and we can alter outcome by altering these cofactors. None of the studies (except Chaisson *et al.*, who show cocaine use as a risk factor) have evaluated the role of behavior, attitude, nutrition, drug and alcohol use, smoking, etc. as factors in infection and in progression to AIDS. We know that at least some of these behaviors are immunosuppressive.

The recent editorial by Dr. Baltimore does not ask the key question: What factors or cofactors influence the virus specific cytotoxic T lymphocyte (and the CD-4 count, development of PCP, etc.) Despite the Baltimore editorial and the study of Ho there are opposite opinions about viral latency.

I fully support the enthusiasm about early intervention with PCP prophylaxis and prescribe it for my patients. Aerosolized pentamidine is relatively nontoxic. Despite our joy, we must know that we are doing this, in the words of Dr. Mazur, "despite the paucity of carefully analyzed and published data about its long-term efficacy and toxicity."

There are many long-term survivors of the disease AIDS. I have spoken of the difficulty they have in being studied. We must realize that anecdotes in large numbers can be valuable. We need only see one white crow to conclude that not all crows are black.

The controversy surrounding use of AZT in patients with CD-4 counts between 200 and 500/mm^3 has been referred to in the articles by Dr. Bartlett and me. The original AZT study had an endpoint of death, and the results were clear. The endpoint of development of AIDS or advanced ARC in the new studies is much less clear. In fact, the biggest criticism of adopting the results is that they have not yet been published in the medical literature months after they were announced. If the endpoint was development of PCP, could we prevent that with prophylactic pentamidine and save AZT for later use?

AZT is a very important drug; we need to define its proper use. This is no controversy about data supporting treatment of patients with CD-4 counts under 200/mm^3. The role of AZT in patients with higher counts (especially 350-500/mm^3) has not been defined by the current studies (despite 4,000 participants, the conclusions are based on progression to AIDS in less than 100 patients in each group).

I know of physicians who called patients or sent letters to those with CD-4 counts between 350-500 mm^3 acting as though they had a cure. I do not believe we should treat perfectly well people with CD-4 counts in the 400s with a potentially toxic drug. I have seen adverse outcomes from this practice.

Finally, I applaud Dr. Bartlett's many contributions and tireless energy devoted to the fight on AIDS. I agree with his conclusions about HIV-1 infection as a manageable disease. However, we must look beyond chemotherapy and vaccines to lifestyle, emotions, attitude, behavior, and other factors to truly live long and live well. We should get every patient to ask what he or she can do mentally, physically, emotionally, and spiritually to live long and live well for the next 5, 10, or 50 years.

We must examine the fundamental questions of how we view illness. Is disease purely physical, involving only external causative factors such as bacteria, viruses, or cancer carcinogens, and therefore healing occurs only through external means such as drugs, chemotherapy, radiation, etc? Or are there internal causative factors of disease? Do the mind, emotions, and spirit modify the onset and progression of illness? Is the patient the healer with the assistance of external means?

References previously cited by Drs. Bartlett and Pachuta are available from the author. ■

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MRI UPDATE



Figure 1



Figure 2


Figure 3

CLINICAL INFORMATION: This is a 69-year-old male who is unable to abduct his right arm and who has difficulty extending his arm. This is associated with right shoulder pain.

FINDINGS: Figure 1 is a proton density image in the coronal plane of the right shoulder. There is degenerative hypertrophy of the right acromioclavicular joint with a prominent inferior projecting osteophyte (A). A roughly linear area of low signal intensity inferior to the right distal clavicle represents the medial aspect of the rotator cuff (labeled B). A thin linear structure of low signal intensity superior to the right humeral head (labeled C) represents the lateral portion of the rotator cuff. Figure 2 is a T2-weighted image again demonstrating the inferior projecting osteophyte from the acromioclavicular joint (A) and the components of the torn rotator cuff (labeled B and C) as previously described. Increased signal intensity material between the torn portions of the rotator cuff represents joint fluid lying both within the joint space and in the subacromial bursa. Image #3 is a partial flip angle image which is sensitive for T2-weighting. This exhibits increased signal intensity in the immediate region of the rotator cuff tear as well as extending lateral over the right humeral head. The level of this slice is slightly anterior to figures 1 and 2 and the increased signal intensity material represents joint fluid extending over the right humeral head into the subdeltoid bursa.

The MR images demonstrate complete disruption of the rotator cuff which may be due to an acute injury or possibly due to chronic entrapment of the rotator cuff by the degenerated right acromioclavicular joint.

COMMENT: MR imaging is the only modality capable of directly visualizing and differentiating the various soft tissue components of the musculoskeletal system. Only CT arthrography approaches this degree of accuracy in the detection of rotator cuff tears, however CT arthrography like its cousin, routine shoulder arthrography, is invasive and requires injection of contrast into the shoulder joint. MR is the imaging modality of choice in the initial evaluation of soft tissue injuries of the shoulder joint with routine or CT arthrography reserved for those patients on whom the MR study was indeterminate.

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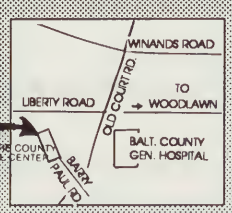
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NOW LEASING

Council - September 14, 1989
Sheraton Ocean City Resort and Convention Center

The 379th meeting of the Council was held as shown.

Minutes The Council minutes of June 29, 1989 were approved as submitted. In addition, the Council accepted the minutes of the Executive Committee of June 15, July 20, August 16, and August 24, 1989.

Legal Services Dr. Nagel announced that Gerry Evans had terminated his employment with Med-Chi to assume the private practice of law with the firm of Rifkin, Evans, Silver, and Lamone and that a contract had been offered by the firm to provide legal services to Med Chi. Dr. Nagel informed the Council that the Executive Committee had appointed an ad hoc committee to study the contract, and it was the consensus of the committee that it would be financially advantageous for Med Chi to accept the contract.

After discussion, Council adopted a motion to agree to enter into a contract with the law firm of Rifkin, Evans, Silver, and Lamone, if the contract was amended to include an escape clause, and if the amount of the fee to be paid to the law firm was entered into the contract.

Mr. Rifkin and Mr. Evans agreed to amend the contract as directed by the Council. The Council voted to approve the contract as amended.

Committee Reports

Committee on Scientific Activity

CME Cosponsorship Policy Dr. Jack Zimmerman, Chairman of the Committee on Scientific Activity, on behalf of the committee, presented a revised policy for Med-Chi cosponsorship of CME programs, which was approved unanimously by the Council.

Annual Meetings Dr. Zimmerman announced that the 1990 Annual Meeting will be held at the Turf Valley Inn and Country Club on May 9 through 11, and that Med Chi is planning to finalize a contract for five years with Turf Valley. He also explained that due to the size of our group, Med Chi does not use many hotel rooms, which is a requirement of the hotel industry, thus the difficulty we have in finding suitable sites to hold meetings in Maryland. Dr. Zimmerman's report was accepted by the Council as information.

Committee on Alcoholism and Chemical Dependency Dr. Franklin Evans, Chairman, presented a resolution, "The Responsibility for One's Behavior While Under the Influence of Alcohol," for Council's approval. Following the adoption of a motion to amend the resolution by adding the words "and mind-altering drug" wherever the word "alcohol" is mentioned, the resolution was adopted, as amended, as follows:

Resolution - The Responsibility for One's Behavior While Under the Influence of Alcohol and Mind-Altering Drugs

Whereas, The presence of drug dependency or addiction, including alcoholism, may be a significant factor in a person's antisocial and/or illegal actions and may, but not necessarily, mitigate social, administrative or legal sanctions;
Whereas, The presence of dependency/addiction does not, by itself, exempt the person from responsibility for his/her actions; and
Whereas, The twelve step programs (AA, NA, etc.) encourage persons to make amends for past antisocial and/or illegal behavior;
Whereas, The choice is not between treatment or punishment for a drug dependent/addicted person's antisocial and/or illegal behavior; rather these are separate issues; and
Whereas, Each issue needs to be addressed, unless a person was mentally incompetent by legal standards when the action was committed and/or the sanctions would negatively affect his/her recovery from dependency/addiction; therefore be it further
RESOLVED, That the Medical and Chirurgical Faculty of Maryland supports serious consideration be given to requiring both treatment and legal sanctions in adjudication of alcohol and mind-altering drug-related offenses such as DWI, as said legal sanctions may actually motivate a person to pursue a program of recovery.

Employee Health Insurance Ad Hoc Committee Following the report of the Chairman, Dr. Hiroshi Nakazawa, a motion was adopted unanimously to accept the report in which the following recommendations are presented:

1. That Med Chi continue to study the issue of health care for the uninsured by providing the Public Health Committee all acquired information concerning this subject to permit continuation of study and development of a Med Chi position paper;
2. That Med Chi provide assistance, where possible, to all private and governmental groups in attaining appropriate health care services for the uninsured in need of care;
3. That the Med Chi Agency (not the Faculty) be encouraged to participate in consultation services-for-pay related to employer health insurance plans; and
4. That this ad hoc committee be disbanded as having accomplished its purpose.

AMA Delegation Dr. Albert Antlitz, Chairman, presented three resolutions for the Council's consideration. Council adopted unanimously the resolution on the "Use of Insecticides" and the resolution on "Gun Control," however, voted to postpone the resolution submitted by Dr. Henry Wagner on "Support for Improvement of the Health Environment in Developing Countries," until the next Council meeting, October 19, 1989, to which Dr. Henry Wagner, will be invited to present the issue.

The resolutions adopted by the Council are as follows:

Resolution on Use of Insecticides - ADOPTED

Whereas, There are many insecticides, fungicides and other

chemicals used to improve or alter the growth of fruits and vegetables while the safety of these chemicals for human consumption is unproven for the most part; and
Whereas, One of the most important duties of physicians is to help provide as safe an environment as possible for the citizens of this nation; therefore, be it
RESOLVED, That the American Medical Association, at once and with the greatest vigor, bring before the members of the Congress of the United States, our urgent request to curb the inappropriate and unsafe use of these chemicals; and be it further
RESOLVED, That the safety of these and any other chemicals that may be used in the future shall be proven before they may be introduced into the food chain.

Resolution on Gun Control - ADOPTED

Whereas, Over ten thousand lives are lost and countless others seriously injured by firearms in the United States each year;
Whereas, Epidemiologic studies have related firearms kept in the home to many more criminal homicides, accidental deaths, and suicides than to self-protection homicides;
Whereas, Other studies have demonstrated an association between stricter handgun regulation and reduction in handgun crime, assaults, and homicides;
Whereas, The State of Maryland requires a seven-day waiting period from the time of application to purchase or transfer of a handgun before the handgun is finally sold or transferred; and
Whereas, The Supreme Court of the United States has repeatedly ruled that firearms control laws enacted by the states are constitutional; therefore, be it
RESOLVED, That the American Medical Association use its great influence in matters of health to effect passage of legislation in the Congress of the United States;

1. Mandating a national waiting period that allows for a police background check and fingerprint check for anyone who wants to purchase a handgun from a gun dealer anywhere in our country; and
2. Ban Saturday night specials throughout the nation, just as lawmakers have done in Maryland.

Legislative Committee In the absence of Dr. Susan Guarnieri, Chairman, Mr. Gerry Evans presented a brief update on legislative activities. In response to a question by the Chair if Dr. Guarnieri would be requesting more "white papers," Mr. Evans responded in the affirmative and the Chair directed that staff assist as much as possible toward this goal.

Policy and Planning Committee The Council accepted the report of the Policy and Planning Committee and the recommendations contained therein with minor modifications.

Finance Committee Dr. Jose Yosuico, Chairman of the Finance Committee, presented a verbal report of the Faculty's financial position, which included a request for approval of the transfer of funds in the amount of $175,000 from reserves to the operating budget to cover items expended but not previously budgeted and items underbudgeted, and the approval of an increase of $51,000 in the 1989 budget to cover fees for legal services. The Council adopted a motion to approve the requests of the Finance Committee as presented.

Professional Ethics Committee Dr. Louis Breschi, Chairman, presented the committee's recommendations on the following revised statements which were acted upon by Council as indicated:

Release of Information - ADOPTED

103. RELEASE OF INFORMATION (caps indicated changed) Except as provided by law or as authorized by the patient, a physician should not release medical information about a patient to any person. TELEPHONE INFORMATION REQUESTED BY THIRD PARTY CARRIERS OR SIMILAR THIRD PARTIES SHOULD BE REFUSED UNLESS AUTHORIZATION OF PATIENT IS PROVIDED.

Pronouncement of Death - ADOPTED

102. PRONOUNCEMENT OF DEATH (caps indicate change) UNLESS EXCEPTIONAL CIRCUMSTANCES WARRANT OTHERWISE, a body should be identified, viewed, and death verified by a physician. An exception to this directive may occur, if a physician has seen a patient whose death is reasonably anticipated. In that case, a person who is capable of recognizing cessation of respiration and heart beat may verify death for the physician and so advise him in a reasonable period of time.

Physician/Pharmacist Code of Cooperation - ADOPTED

Following Dr. Breschi's explanation of the revisions to the Code, the Council adopted the revised Code of Cooperation unanimously.

Termination of Physician/Patient Relationship - ADOPTED

(CAPS indicate change)

(A) A physician may choose, for whatever reason, to terminate his relationship with a patient. Should termination become an issue before the patient can be safely discharged, the physician must be certain that adequate medical care is available to the patient before terminating the relationship. Should the physician make a decision to terminate, he should notify the patient in writing as soon as possible.
(B) A PHYSICIAN MAY NOT ETHICALLY TERMINATE PATIENT CARE IF TO DO SO WOULD DEPRIVE THE PATIENT OF NEEDED CARE. HOWEVER, A HOSPITAL BY ITS BYLAWS MAY MAKE THE RESPONSIBILITY FOR PATIENT CARE MORE DEMANDING, (FOR EXAMPLE, AN ON CALL PHYSICIAN MAY BE REQUIRED TO PROVIDE INITIAL FOLLOW UP CARE TO THE E.R. PATIENT), BUT THE PHYSICIAN'S RESPONSIBILITY CANNOT BE ABROGATED BY THE HOSPITAL BYLAWS.

Computers in Medicine Committee Dr. Rafael Haciski, Chairman, presented the committee's report in which a request for approval of the installation of an 800 line for incoming instate calls to Maryland MedSig, the Faculty's computer bulletin board. Following Dr. Haciski's presentation of the breakdown of costs for this project totaling approximately $7,200 annually, the Council voted to postpone the matter until the next meeting of the Council, October 19, 1989.

The second part of the committee's report contained a request for an expenditure of $2,000 to be used to convert membership information now maintained on the Faculty's Digital Computer to a computer language and format compatible with the rest of the Faculty's computers. This will enable Med Chi to offer component medical societies a more detailed computerized referral system for their members, improve the capacity to identify and locate physicians who are not members of the Faculty, and provide instant access to important statistical information on Faculty members.

A motion was adopted unanimously to approve the expenditure of a one-time charge of $2,000 to convert the data as stated in the report.

Agenda Items

On the call of Chairman Dr. Nagel, agenda items III-K, IV, V, and VI were approved by the Council under the "consent calendar":

Item III-K. Specialty Society Committee The committee's recommendations were approved as follows:

(a) That Dr. Kenneth Lewis serve as the committee's representative to the Council;
(b) That the committee continue to work toward identifying seven members as representatives to the House of Delegates; and
(c) That the committee continue to work on the development of further criteria for specialty society membership on the committee in accordance with the motion of the House of Delegates, April 1989.

Item IV. Emeritus Members The following physicians were approved for emeritus membership in the Faculty at the request of the component society indicated:

Baltimore City
Vantana Sadarananda MD, Baltimore

Prince George's County
Philip A. Cox MD, Fredericksburg, VA
Julio C. Quintana MD, Lanham

Item V. Dues Waiver The following physician was approved for 1989 dues waiver at the request of the component society indicated:

Baltimore City
Jonas H. Cohen MD, Baltimore

Item VI. New Business

A. Hospice Care - (information item) Council was provided with a copy of letter from the Medical Care Policy Administration of the Department of Health and Mental Hygiene regarding a policy to become effective October 1, 1989 which will cover hospice care as an option under the Medical Assistance Program. This information has also been provided to the component societies and to the Faculty's Liaison Committee with the DHMH.

B. Medicare (BC/BS) - (information item) A copy of letter from Blue Cross/Blue Shield of Maryland addressing the medical policy of Medicare on Epidural Opiate Analgesia, Patient Controlled Analgesia (PCA), Laser Angioplasty, Atherectomy, Spect Imaging, and 5 FU/Leucovorin for Treatment of Solid Tumors was provided to the Council for information. This information has also been sent to the component medical societies and to the Faculty's Committee on Managed Care.

C. Council November Meeting Date Due to a conflict with the AMA Interim Meeting, the Council approved a change in the November meeting date from November 30, 1989, to Thursday, November 16, 1989.

Old Business

White Papers

AIDS - Dr. Donald Pachuta, Chairman, Committee on AIDS, presented his "white paper" which, after the adoption of an amendment to Item VII to change the last sentence to read "We recommend a Faculty policy in opposition to any such requirement for CME on the subject of AIDS or HIV infection," the paper was adopted by the Council as Med Chi's official position on the subject of AIDS.

Drug Control - A "white paper" presented by Dr. Nelson Goodman, Chairman, Committee on Drugs, on the issues of prescription drug control and dispensing, was adopted by the Council.

Problems of the Uninsured

Cholesterol Testing - Dr. Herman Maganzini, Chairman, Public Health Committee, presented an oral report on the problems of the uninsured and on cholesterol testing, and stated that he is in the process of preparing "white papers" on both subjects.

Other Business

Dr. Nagel announced that a meeting of the Council would be held on Thursday, October 19, 1989, to address financial matters and peer review issues among other things.

Peer Review Dr. Gary Rosenberg, on behalf of the Baltimore City Medical Society, presented the following motion, which was tabled until the October 19, 1989, meeting of the Council:

That Med Chi explore the availability of funding to be allocated equitably through Med Chi to the component medical societies to finance peer review; and
That Med-Chi include in its 1990 budget a line item to pay each component society $300 or more for each case reviewed by the component society, provided that the Peer Review Management Committee approves the review and report for submission to the Board of Physician Quality Assurance. In any case in which the Peer Review Management Committee finds the report inadequate and requires a re-review by another review committee, no amount will be paid to the component performing the original review.

Executive Committee - September 28, 1989

Minutes - It was reported that there were no minutes to be approved, having been approved at the last meeting of the Executive Committee on August 24.

Committee Reports

Public Relations Committee The Executive Committee was advised that the committee recommendations contained in the report had been accomplished. Regarding public relations, Dr. Bob raised the issue of the Giant Pharmacy's advertisement on TV and radio advising potential customers of their drug profile system. The Chair accepted Dr. Dobridge's volunteering to pursue this issue through personal contacts within the Giant Pharmacy system. The Public Relations Committee also requested that Faculty President Dr. Atkins, attend their next meeting on October 18.

Peer Review Management Committee It was reported that there was agreement between the Peer Review Management Committee Chairman, Dr. Christopher Harvey, and the Board of Physician Quality Assurance's Subcommittee Chairman, Dr. Peter Dans, on all aspects of the Peer Review Manual. The manual is in the process of being prepared in final form by Med Chi and will be presented to the Council by Dr. Harvey and Dr. Dans at the October 19, 1989 meeting. Dr. Nagel stated that due to the excessive costs involved, copies of the manual would be provided to the full-time executives of component medical societies, who would be responsible for notifying their councilors that the Peer Review Manual would be available in their respective offices for review prior to the Council meeting on October 19.

The Executive Committee discussed, at length, the following motion, which was tabled by the Council at its meeting on September 14:

> That Med-Chi explore the availability of funding to be allocated equitably through Med-Chi to the component medical societies to finance peer review; and
> That Med-Chi include in its 1990 budget a line item to pay each component society $300 or more for each case reviewed by the component society, provided that the Peer Review Management Committee approves the review and report for submission to the Board of Physician Quality Assurance. In any case in which the Peer Review Management Committee finds the report inadequate and a re-review by another review committee, no amount will be paid to the component performing the original review.

During the discussion, the Chair directed staff to prepare a proposal to address the development of Med Chi's statewide plan in regard to the peer review process; that is, the costs involved, goals, etc. and, further, that staff meet with the executive directors of major component societies and presidents of those component societies without full-time executives, to discuss the plan prior to the October 19 meeting of the Executive Committee, at which time a preliminary report on this issue is to be presented.

White Papers Dr. Atkins stated that he would like to have all white papers completed before the 1990 legislative session. Further discussion of the white papers was deferred to executive session.

Press Releases The Chair directed that all Med Chi press releases be sent to the component societies for information.

Legislative Gerry Evans updated the Executive Committee on the Fineblatt Commission's possible recommendations for both uninsured citizens and for the probability of establishing a cost control system on physicians, similar to the HSCRC's position on fees for hospital inpatients. Dr. Nagel announced that he and the executive director had interviewed a potential candidate for the position of in-house counsel.

Triplicate Prescriptions Mr. Troisi reported that Dr. Nelson Goodman, Chairman of the Committee on Drugs, had met with Mr. Bob Neill of the Governor's Drug Commission, along with representatives from Johns Hopkins and the University of Maryland, and other physicians. There was agreement and acceptance of Med Chi's four-point position: to increase the accessibility of detoxification programs, to increase the accessibility of drug rehabilitation programs, to educate all physicians as to the appropriate interim treatment of those using drugs, and lastly, to increase the awareness of physicians relative to any inappropriate prescription practices being unacceptable and, indeed, of criminal behavior.

■ ■ ■

Executive Committee - October 19, 1989

Legal Council - The Executive Committee welcomed Gregory Hall, Esq. who has joined the law firm of Rifkin, Evans, Silver, and Lamone and will serve as the in-house legal counsel for the Faculty.

Minutes - The Executive Committee minutes of September 28, 1989 were approved as distributed.

Committee Reports

Occupational Health Committee - The Executive Committee accepted the minutes of this committee and approved the recommendations as follows:

> 1. A draft letter to be sent to Worker's Compensation insurance carriers, requesting information on their guidelines for length and cost of treatment for lower back injuries and pain; and
> 2. The committee's request to invite a representative from a private rehabilitation cost containment company to share with the committee on how the database was accumulated in reviewing hospital bills for Worker's Compensation cases.

Public Relations Committee The results of the Expenditure Targets (ETs) campaign to keep Med Chi physicians informed about ETs were presented to the Executive Committee. It was pointed out that the Public Relations Committee had polled members of the Faculty's House of Delegates at its meeting on September 14, 1989, which resulted in 97 percent of the

members who indicated that the committee's efforts had been successful. The committee requested approval of the Executive Committee for funds in the amount of $400 to conduct a second survey of physicians through the *Maryland Medical Journal* to obtain more accurate information on the campaign's impact upon the membership, and also to survey the senior citizen groups. The Executive Committee felt that the results of the House of Delegates poll was an adequate statement that the program was successful and declined the committee's request for funds for this purpose.

Committee on Young Physicians The Executive Committee adopted the following recommendations of the Young Physicians Committee contained in its report of October 2, 1989:

1. That the committee be authorized to solicit funds from pharmaceutical companies to hold a social event at the 1990 Annual Meeting of the Faculty; and
2. That the committee be authorized to plan an educational program for young physicians to be held during the 1990 Annual Meeting.

The Executive Committee suggested that the Young Physicians Committee consult with the Committee on Scientific Activity if any funding is necessary to implement these plans for the 1990 Annual Meeting.

Committee on Alcoholism & Chemical Dependency Report accepted, no action required.

Committee on Public Health Subcommittee of Maternal Health and Welfare - Dr. Raymond Atkins reviewed the recommendations presented to the Executive Committee and spoke highly of the Committee and its intentions. The Executive Committee approved the Subcommittee's request to:

1. Form a joint committee with the DHMH Division of Maternal Health and Family Planning to continue review of all incidents of maternal deaths in the State of Maryland, and
2. Grant the Subcommittee authority to assist the Maryland Health Coalition in the development of a second brochure on Cesarean sections to teach patients about recognizing preterm labor, although no dollar figure accompanied this recommendation. The Executive Committee agreed no funds are to be allocated for this purpose.

Peer Review Management Committee Mr. Troisi reviewed the summary report of the peer review process and its cost implications with the Executive Committee, and presented the following recommendations:

1. That the current peer review process remain in effect at this time;
2. That physician nonmembers of Med Chi be required by legislative action to contribute monies to Med Chi in support of the Peer Review and Physician Rehabilitation Program.

This issue is scheduled for presentation to the Council today, October 19.

PRO Monitoring Committee The Executive Committee discussed, at length, a letter from Dr. John Singer, Chairman, PRO Monitoring Committee, in which it was reported that Delmarva has agreed to participate in HCFA's pilot project involving office-based review. 250 Maryland physicians ("volunteers"), divided into seven specialty areas, will have their office charts reviewed by Delmarva for quality of care, ancillary service utilization and the comparison of bills to Medicare with documentation that the services were indeed provided. If the program is successful, the next step would be a broad-based review of the office practice of medicine for all groups dealing with Medicare patients. In his letter, Dr. Singer indicated that during the pilot project, Delmarva will reimburse physicians for the copying of office charts to be sent to the Delmarva office; however, the physician will more than likely have to absorb the expense of chart duplication.

Also, beginning on January 1, 1990, HCFA has mandated that Medicare will start paying for home IV therapy, and that there will be a specific formulary of drugs that Medicare will use as an accepted list for reimbursement. This will require a huge amount of paperwork, including pre-authorization, before any Medicare patient can be discharged on this type of treatment.

Following discussion of these issues, the Executive Committee directed that a letter be sent to the Delmarva PRO, over Dr. Nagel's signature, expressing Med Chi's concern about the manner in which peer review is conducted by Delmarva.

■ ■ ■

Council - Special Meeting - October 19, 1989

Minutes The Council minutes of September 14, 1989 were approved as submitted, and the Executive Committee minutes of September 28, 1989 were accepted by the Council.

Peer Review Management Committee Dr. Christopher Harvey, Chairman, presented an overview of the committee's work citing its problems and responsibilities from the inception and expressed his appreciation to those who were instrumental in completing the *Peer Review Handbook*. He stated that the committee was satisfied with the final version of the handbook and requested Council's approval. Dr. Peter Dans, Chairman of the Subcommittee of the Board of Physician Quality Assurance, stated that the handbook had become a national model to be used by other states. Following discussion, Council voted unanimously to approve the handbook, which will be forwarded to the Physician Quality Assurance Board for final approval. Council demonstrated its appreciation to those responsible for producing the handbook with a round of applause.

Hospital Medical Staffs Committee

Credentialing Dr. Victor Hrehorovich, Chairman of the Hospital Medical Staffs Committee, provided an

update on the proposed Faculty credentialing service and presented the committee's recommendation that the service be implemented immediately. Dr. Hrehorovich stated that $16,000 would be needed for start-up costs for the Med Chi credentialing program and that these costs would be recovered and returned to the Faculty. On motion by Dr. Lawrence Fink, the Council voted to proceed with the program. During the lengthy discussion, it was pointed out that the hospitals had been solicited by the Maryland Hospital Association for a commitment to participate in the MHA proposed credentialing system.

Committee on AIDS Dr. Donald Pachuta, Chairman, addressed the Council with a request for approval to offer the expertise of the Faculty and the Committee on AIDS to both public and private schools in Maryland, which the Council approved unanimously. Dr. Pachuta also presented a recommendation to revise the current "white paper" on AIDS to include Med Chi's position as opposing mandatory reporting of asymptomatic individuals who are HIV positive. Following discussion, the Council adopted a motion to approve the inclusion of this statement in the AIDS "white paper."

AMA Delegation Dr. Albert M. Antlitz, Delegation Chairman, reported the actions of the Delegation on a resolution entitled, "Support for Improvement of the Health Environment in Developing Countries," which, if approved by Council, will be presented to the AMA House of Delegates at its Interim Meeting in December. Dr. Carl Taylor, Professor Emeritus of International Health at the Johns Hopkins Medical Institutes, in the absence of Dr. Henry Wagner, AMA Alternate Delegate, presented the resolution, which was adopted unanimously by the Council, as follows:

Whereas, The AMA has always manifested sincere concern for health conditions among the poor and neglected people and expressed this concern specifically by promoting action to improve health conditions in developing countries;

Whereas, In many countries in Africa, Latin America, the Caribbean and Asia child mortality has gone up abruptly in the past 5 years;

Whereas, The underlying reason for these sharp increases in mortality were cuts of 30% to 50% in national health budgets in response to economic adjustment policies imposed by the International Monetary Fund to pay interest on massive loans of hundreds of billions of dollars. Most of this indebtedness is to American banks, the IMF and World Bank;

Whereas, These banks have already set aside most of the funds needed to remit these loans if given encouragement and incentive;

Whereas, There are further problems emerging in many African, Caribbean and Latin American countries where local economies are in shambles because of structural adjustment policies so that unemployment is rising sharply, hunger is increasing among the poor and political instability is impending;

Whereas, The health sciences have provided a unique grouping of simple and inexpensive child survival interventions which could sustainably reduce infant and child mortality by an estimated 50% if applied as part of primary health care in most developing countries;

Whereas, The Expanded Program for immunization against six common childhood diseases has in the past 5 years averted an estimated 1 1/2 million of the 14 million preventable child deaths each year in developing countries, with a similar reduction of 1/2 million deaths from the use of oral rehydration for diarrhea. For the average African country to maintain these programs under present financial constraints is manifestly impossible while the massive indebtedness persists; and

Whereas, The potential for a worldwide child survival and development revolution needs to be actively promoted and this can be done only if national governments are given special incentives both to invest in sustainable and self-sufficient health and nutrition service and to improve local environmental and ecological conditions; therefore be it

RESOLVED, That the American Medical Association take all possible action to:

1. Encourage Congress to express a strong and clear commitment to continue the promotion of measures to improve child survival and development through long-term health and environmental programs in the poor countries of the world; and

2. Promote in Congress the passage of legislation that will provide tax and other incentives so that American Banks, the IMF and World Bank will remit national debts in developing countries on the condition that *additional* funds in local currency, *equivalent* to the payments required under current obligations will be allocated to continuing programs for the following activities:

(1) Expansion of child survival and nutrition programs.

(2) Development of primary health care infrastructure.

(3) Initiation and expansion of control efforts against major endemic diseases such as malaria, leprosy, tuberculosis, childhood pneumonia and other infectious diseases.

(4) Improvemnt of environmental conditions to enhance the quality of life and protect local ecology in developing countries where massive environmental deterioration is having both local and worldwide impact.

Emeritus Members The Council approved the following physicians for Emeritus Membership in the Faculty as requested by the component society indicated:

Baltimore County

William P. Houpt MD, Bel Air

Montgomery County

Francis J. Crilley Jr. MD, Bethesda
Marvin I. Mones MD, Silver Spring
Steven Oristian MD, Auburn, NY
Roland H. White MD, Laurel

These names will be presented to the House of Delegates for consideration at its 1990 annual session.

Old Business

White Papers Draft copies of white papers on "Cholesterol Testing" and "Problems of the Uninsured" were distributed to Council for consideration of approval. The Council adopted the proposed position paper on "Cholesterol Testing" with the recommendation that the paper be reviewed on an annual basis due to changing concepts. Dr. Ted Lewers recommended several changes to the white paper on "Problems of the Uninsured," which resulted in a motion, duly seconded and adopted, that Dr. Lewers and Dr. Maganzini

review the proposed changes to the position paper and present their recommendations to the Council at its November 16, 1989 meeting.

Peer Review Funding At the September 14, 1989 meeting of the Council, the following motion by Dr. Gary Rosenberg, presented on behalf of the Baltimore City Medical Society, was postponed by the Council. The motion reads:

> That Med Chi explore the availability of funding to be allocated equitably through Med-Chi to the component medical societies to finance peer review; and
> That Med Chi include in its 1990 budget a line item to pay each component society $300 or more for each case reviewed by the component society, provided that the Peer Review Management Committee approves the review and report for submission to the Board of Physician Quality Assurance. In any case in which the Peer Review Management Committee finds the report inadequate and requires a re-review by another review committee, no amount will be paid to the component performing the original review."

Relative to this matter, the following recommendations of the Finance Committee were also considered by the Council:

> 1. That no funds be transferred from reserves for new projects at this time, and
> 2. That the decision is to be made by the leadership if the Faculty should reimburse components for peer review costs before the Finance Committee completes the budgeting process for 1990.

Further, the Executive Director presented a report to the Council which addressed the peer review process and cost implications and contained the following recommendations:

> (a) that the current peer review process remain in place at this time, and
> (b) that physician nonmembers of Med Chi be required by legislative action to contribute monies to Med Chi in support of the Peer Review and Physician Rehabilitation Programs.

Following discussion of the issue, the Council adopted a motion by Dr. Lawrence Fink to accept the recommendations of the Finance Committee and those of the Executive Director to deny the motion to fund the component societies for processing of peer review cases.

Legal Counsel Gerry Evans introduced Gregory Hall, Esq., who has been employed by the Council, firm of Rifkin, Evans, Silver, and Lamone as Med Chi's in-house legal counsel.

New Business

Medicaid Diversion Dr. Joseph Fastow, in the absence of Dr. Gary Rosenberg, Chairman of the Liaison Committee with Medical Assistance Programs, briefed the Council on the Medicaid Diversion Project and the payment schedule for emergency physicians which limits reimbursement to a single fee of $13, regardless of the level of service rendered. Dr. Fastow further stated that the plan proposes that emergency physicians will be reimbursed at a rate of $9.50 for those patients diverted to less expensive sources of primary care, which is $3.50 below the fee paid to primary care physicians. Following a lengthy discussion, the Council adopted a motion to support a tiered level of payment for services provided by emergency physicians, similar to that of primary care physicians, and further, that there be no discrimination against emergency physicians in this state or any other state relative to payment for services.

Medical Mutual Dr. Raymond Yow, President, and Mr. David Murray, Chief Executive Officer, Medical Mutual Liability Insurance Society, were present to answer questions regarding Medical Mutual's recent announcement that a 20 percent dividend credit in liability insurance rates will be offered to all Med Mutual members who renew their policies in 1990. The Council was informed that the dividend credit and reduction in the Rate Stabilization Reserve Fund are the direct results of the cumulative efforts of tort reform and insurance legislation enacted by the Maryland General Assembly. Appreciation was given to the combined efforts of all Med Chi personnel, physicians, and staff alike, with special thanks to Executive Director of Medicine, Angelo Troisi and Dave Murray, Chief Executive Oficer, Medical Mutual for their coordination of these efforts. The Council gave a round of applause in appreciation of Med Mutual's efforts to reduce the cost of malpractice insurance for the physicians of Maryland.

Blue Cross/Blue Shield Council received as information a report by Dr. Barry Gold, Medical Director, Medicare Program of Blue Cross/Blue Shield of Maryland, who informed the Council that Medicare was reviewing a random sample of nonparticipating physicians who perform elective surgical procedures for charges of $500 or more, as required the provisions of the Omnibus Budget Reconciliation Act of 1986. The law dictates that if the nonparticipating physician plans to perform an elective surgical procedure for which he charges at least $500 and he does not intend to accept the Medicare assignment, the patient must be given written disclosure of the physician's estimated actual charge for the surgery, as well as the estimated Medicare approved charge and the difference between the physician's actual charge and the Medicare approved charge. Physicians are required to retain in their files copies of all letters concerning charge information sent to their patients. The carrier will monitor for compliance with law by periodically requesting copies of the letter and, in the event a copy of the letter is not provided the carrier, the physician will be required to refund the patient any payments in excess of the Medicare allowances.

Award to Governor Schaefer It was reported to Council that Governor William Donald Schaefer had been awarded the AMA's Dr. Nathan Davis Award for Outstanding Public Service. The award recognizes contributions by public servants promoting the art and

science of medicine and the betterment of public health.

Executive Director Dr. George Malouf pointed out the relative significance of the accomplishments of Med-Chi's Executive Director, and asked the Council to consider the renewal of Mr. Troisi's contract for an extension of five years. The matter was postponed for discussion in executive session, immediately following the meeting.

Announcement Dr. Lewers announced that Ben Cardin had been appointed to the House Committee on Ways and Means and reminded the Council of the potential beneficial aspects that this appointment may have for Med Chi.

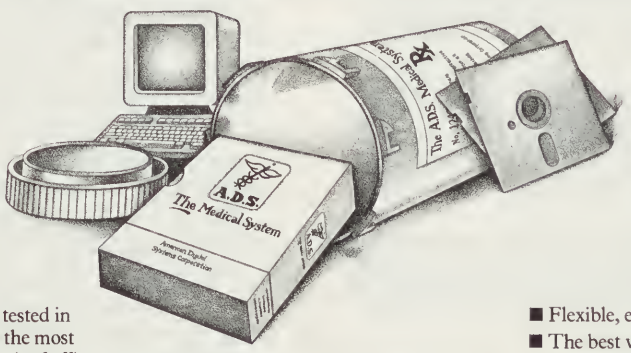
Executive Session During the executive session, Council took up the motion of extending the Executive Director's contract for a five-year term. During the discussion, it was stated that the legal/lobbying services provided by Med Chi's law firm for a five-year contract period must be matched by Med Chi's administrative continuity for a similar five-year period, so as to maintain the teamwork so vital toward continuing the accomplishments experienced in the immediate past. After additional comments, the Council approved, unanimously, the motion to extend Angelo Troisi's contract for a five-year term and directed the Council Chairman to accomplish necessary agreements. ■

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Mail Ordering Medical Supplies

Doctor, in many of the magazines for diabetic patients such as Diabetes Forecast *and* Diabetes, Self-Management *there are mail order advertisements for glucose meters, test strips, syringes, insulin, and other supplies. Usually the prices quoted are less than those at the neighborhood pharmacy and an 800 number for ordering is often provided. Is it safe to order supplies from places with mail delivery?*

As you know or have heard, mail order businesses are usually reputable, but a few bad ones taint the industry. Reputable magazines screen advertisers as well as they can, yet an occasional bad one may make the advertising pages. If one orders a product by telephone for mail delivery and pays by credit card, payment can be canceled with no financial loss if delivery is not made or the product is not as described.

When purchasing a blood glucose monitoring instrument, the purchase price includes one-on-one instruction until the instrument is mastered. Since this cannot be accomplished by telephone, the purchaser is short-changed with a mail order purchase. I would not recommend purchasing a blood glucose monitor by mail unless it is a device identical to one you have been trained to use.

Insulin should not be ordered for routine mail delivery because the way it is handled those few days in transit may affect its potency and stability. If it is delivered by a "special handling" system, any comment on that delivery would depend on how "special" the handling might be managed. With a medication as essential as insulin it is best to err on the side of safety in its handling.

Ordering glucose tablets, glucose test strips, insulin syringes, and other supplies probably could be done safely by mail. Test strip manufacturers probably would replace any unsatisfactory product of theirs that you might receive through the mail. Be sure to check that the strips received are not "outdated."

Unfortunately, chain drug stores have almost completely replaced independent pharmacies, and one cannot easily become acquainted with the pharmacist. But if you can get to know a pharmacist, you will often find his/her prices competitive and he or she will take a personal interest in your health.

To help remedy any problems you might have with "mail order merchandise" the FTC has published a four-page brochure "Shopping by Phone and Mail" detailing the protection you have under the FTC's mail order merchandise rule. To be advised of your rights, order your free copy from

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DeWITT E. DeLAWTER MD
Editor

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Metastatic Melanoma from an Unknown Primary Site

Before we discuss metastatic melanoma, we must realize that there are four major types of primary melanomas: cutaneous, mucosal, ocular, and meningeal. The most common is the cutaneous, which can be diagnosed in any area of the skin including the scalp, ears, under the nail (subungual), or eyelid.

Primary mucosal melanomas constitute over two thirds of extracutaneous melanomas. These can be detected in the head and neck region: the nasal cavity, nasopharynx, oral cavity, oropharynx, larynx, hypopharynx, esophagus, and occasionally in the maxillary sinuses. It also can occur in the vulva, vagina, and anal canal.

Primary ocular melanomas constitute almost one third of extracutaneous melanomas and include conjunctival, choroidal (most common), iris, ciliary body, and very rarely in the lacrimal sac.

Primary melanomas of the central nervous system are extremely rare; only 124 cases have been reported. These also are known as leptomeningeal melanomas. While the first three types tend to metastasize regionally as well as systemically, leptomeningeal melanomas do not and are diagnosed at time of surgery or autopsy.

The majority of patients present with an easily detectable primary site such as skin lesion or eye symptoms related to retinal separation (melanoma being the most common malignant tumor of the eye). Occasionally, a patient will present with either lymph node metastases or distant metastases but no detectable primary. Patients with occult primary melanoma constitute 4 to 12 percent of patients with metastatic disease. Almost two thirds of those patients present with metastatic lymph node, most commonly in the axilla. The other third will present with distant metastases in the skin, subcutaneous tissue, lungs, brain, or any other site.

About 10 percent of the patients with metastatic melanomas from an unknown primary may give history of a previous skin mole that had been cauterized or curetted one to three years before. Similarly, the patient may have a nevus that had been scraped off leaving a scar at that site. However, the majority of these patients have no previous history of primary melanoma.

The clinical evaluation of such patients must include careful search of the whole skin surface, and specifically the skin area that drains in that direction, for possible primary site. Special attention should be directed to areas that may be covered by cosmetics (such as the eyelids) and hairy areas (scalp and pubic areas). Suspicious lesion(s) must be biopsied. Areas of skin depigmentation must be looked for because one hypothesis is that the primary lesion may have spontaneously disappeared, having been destroyed by the immune responses of the body. However, some clones of cells with metastatic potential may have escaped such immune surveillance and settled as metastases. Another explanation for metastatic melanoma from unknown primary sites is that it may have arisen from a mucosal or eye tissues. Therefore, it is essential to carry out special examination of the eyes, nasopharynx, oropharynx, oral cavity, larynx, maxillary sinuses, vagina, vulva, and anal canal.

The site of metastases may help in identifying the site of origin and may reflect on the prognosis. The prognosis tends to be better for patients with regional metastases rather than those with distant metastases. Metastases in the axillary lymph nodes, which are the most common, may have better outcomes as they are presumably from a cutaneous origin. Groin metastases originating from a cutaneous origin in the extremity may have a better prognosis than if they had risen from a mucosal origin. Cervical lymph node metastases may have the poorest prognosis as these may represent metastases from mucosal or eye lesions. On the other hand, any of these metastases may represent distant metastases rather than a regional one and may have originated from any of the other sites mentioned. Therefore, the workup must include the search for other metastases as well as for the primary.

The management of such patients should be in the form of a well-planned surgical approach seeking cure or at least palliation. Patients with regional lymph node metastases should undergo radical lymphadenectomy. Their overall five-year survival is about 40 percent, depending largely on the number of the positive lymph nodes. It is almost similar to the survival rates reported in stage II melanoma. Patients with skin and subcutaneous metastases have a better prognosis compared to those with metastases to parenchymatous organs with a two-year survival of less than 30 percent.

Bibliography

Balch CM, Milton GW. Diagnosis of metastatic melanoma at distant sites. In Balch CM, Milton GW, eds. Cutaneous Melanoma. Philadelphia: J.B. Lippincott Co.,1985,ch. 12.

Chang P, Knapper WH. Metastatic melanoma of unknown primary. Cancer 1982;49:1106.

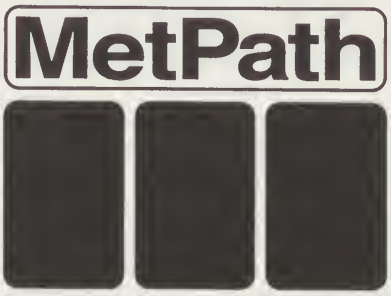
Giuliano AE, Moseley HS, Morton DL. Clinical aspects of unknown primary melanoma. Ann Surg 1980;191: 98.

Reintgen DS, McCarty KS, Woodward B et al. Metastatic malignant melanoma with an unknown primary. Surg Gynecol Obstet 156: 1983;335.

E. GEORGE ELIAS MD, PhD
Director, Surgical Oncology Program

Tumor conferences are held weekly on Tuesday between 8 and 9 a.m. in Room N13E28 at the University of Maryland Medical System. Physicians are welcome to attend this meeting and to present cases and pathological slides. Call the number below by noon Monday to be placed on the schedule.

Surgical Oncology Program at the University of Maryland Medical System, Room N13E02, Baltimore, MD (301-328-5224). ■



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All courses at the Turner Auditorium unless otherwise indicated. Sponsored Continued Education Activities for 1989. Info: Office of Continuing Education, 720 Rutland Ave., Turner Auditorium, Baltimore, MD 21205 (301-955-5880).

February 16

Macular Degeneration - Light, Lasers, Low Vision, The Columbia Inn, Columbia, MD. Fee: $200, $100 those in training; 7.5 AMA Cat I credits. Info: P. Campbell 301-955-2959.

March 19-21

Spectrum of Developmental Disabilities XII: Prematurity: Neurodevelopmental assessment and Intervention Issues. Fee: $395; 20 AMA Cat I credits. Info: J. Nutt 301-955-2959.

March 22-23

Symposium on Dysphagia III: Basic Concepts of Swallowing and Swallowing Disorders. Fee: $350 physicians, $175 residents and allied health professionals; AMA Cat I and other appropriate credits pending. Info: J. Ryan 301-955-2959.

March 29-30

Diagnosis and Treatment of Neoplastic Disorders: Medical, Surgical, and Radiotherapeutic Aspects. Fee: $250, $100 (Non-Maryland physicians-in-training); 14.5 AMA Cat I credits. Info: F. Boling 301-955-2959.

April 2-7

Seventeenth Annual Pediatric Trends. Fee: $550 physicians, $400 residents and fellows; 45 AMA Cat I and 45 PREP credits.l Info: F. Boling 301-955-2959.

May 14-18

Topics in Clinical Medicine. Fee: $650 physicians, $450 residents/PAs, and nurse practitioners; 40 AMA Cat I credits. Info: C. Kearney 301-955-2959.

June 4-15

Third Summer Institute in Environmental Health Studies. Subjects include Risk Assessment & Risk Management, Toxicology, Physiology, Occupational Health, Industrial Hygiene, Radiation Health Science, and Risk Communication. Academic or CEU credit. Info: J. Corn 301-955-2609.

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Ophthalmic Electrophysiology Technician Training Course (on-going 1-week course by appointment). The Wilmer Eye Institute, Baltimore. Info: C. Kearney.

The Department of Radiology and Radiological Sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams 301-955-3169.

Visiting Physicians - offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. Fee: $500; 40 AMA Cat I credits.

Johns Hopkins Medical Grand Rounds - Accredited audiovisual continuing education series of case discussion for clinicians; 30 topics/year in 5 bimonthly programs. Individual and group subscriptions; 40 AMA Cat I credits. Info: 301-955-3988.

Microsurgery Training at The Johns Hopkins Hospital, one week, offered continuously throughout the year. 40 AMA Cat I credits. Info: P. Williams 301-955-3169.

Thirty-first Postgraduate Institute for Pathologists in Clinical Cytopathology for Board Certified (or qualified) pathologists as a subspecialty residency. 152 AMA Cat I credits in two courses, **both of which must be taken**.

February-April Home Study Course A, personal reading and microscopic study at own lab in preparation for Course B.

April 23-May 4 In-residence Course B, lecture series, laboratory, and clinical experience at The Johns Hopkins Medical Institutions, Baltimore.

Course A materials will be sent each participant within the US and Canada for home study. Participants *outside* the US and Canada must make arrangements to study Course A before Course B. *The entire course is given in English.*

Application and preregistration advised ASAP; preregistration must be completed **before March 23, 1990** unless by special arrangement. Info: J. Frost MD, 111 Pathology Bldg., The Johns Hopkins Hospital, Baltimore, MD 21205 USA (301-955-8594).

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CME Courses: For each course additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (301-328-3956) or by calling the phone number listed under a specific program.

February 23

Dean's Conference #5: Advances in Clinical Therapeutics, UMAB Campus, Baltimore. Fee: $35; 5.5 AMA & AAFP credits.

February 24

Neurology and Music at Maryland - Session II, Reports on epilepsy, pain and recurring disorders, and multiple sclerosis, AIDS, and other neurologic infections. A day of medical education, an evening of entertainment by the Baltimore Symphony Orchestra. Info: Dept. Neurology, UMD, 22 S. Greene St., Baltimore, MD 21201 (301-328-6484).

March 9-10

Third Symposium on Urologic Cancer, Harbor Court Hotel, Baltimore. Fee: $175; 11 AMA Cat I credits.

March 18-20

Twelfth National Trauma Symposium: Cross Roads in Trauma Care...Paving the Way to the 21st Century, Baltimore Convention Center. Info: K. Unitas or T. Young 301-328-2399 or FAX 301-328-8514.

March 22

Dean's Conference #6: New Approaches in the Care of the Elderly, UMAB Campus, Baltimore. Fee: $35; 5.5 AMA & AAFP credits.

April 26

Dean's Conference #7: Advances in Endocrinology, UMAB Campus, Baltimore. Fee: $35; 5.5 AMA & AAFP credits.

June 14-17

Third Annual Trauma Anesthesia and Critical Care Symposium. Pre-symposium workshops on ATLS, ACLS, ABLS, APLS, and CRNAs also will be held. Info: MIEMSS Office of International Development, 11 S. Paca St., Ste 303, Baltimore, MD 21201 (301-328-2399).

Continuously Throughout the Year

Visiting Professor Program - Directory of speakers and topics available for area hospitals and other health care organizations. No administrative fee. Info: 301-328-3956.

Visiting Practitioner Preceptorships - Opportunity for physicians to participate in clinical situations in the University of Maryland Medical Systems. Requires approval from clinical department/division heads. Hour-for-hour Cat I credits available. Direct **all** inquiries to CME 301-328-3956.

Departmental Rounds and Conferences - Weekly, hands-on and lecture presentation hosted by the University's clinical departments. Hour-for-hour AMA Cat I credits available. Brochure available.

Advanced Trauma Life Support Provider/Instructor Programs sponsored by University of Maryland/MIEMSS. Info: M. Nelson 301-328-2919.

February 15-16 Provider	August 16-17 Provider
February 28, March 1-2 Instructor	September 12-14 Instructor
April 19-20 Provider	October 18-19 Provider
May 17-18 Provider	November 15-16 Provider
July 19-20 Provider	December 6-7 Provider

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February	Rudiger Breitenecker MD	301-828-2252
	Raymond Eugene Dibiagio Esq	301-760-0616

MISCELLANEOUS MEETINGS

February 21	**New Antidepressant Medications,** Taylor Manor Hospital, 4-5 p.m. 1 AMA Cat I credit. Info: M. Muller 301-465-3322 ext 212.
March 4-9	**Seventeenth Annual Critical Care Medicine Course**, Holiday Inn Airport West, Oklahoma City, Oklahoma. Fee: $600; house staff $500 (with letter from director of training program); physician assistants and registered nurses welcome to register. Accredited by AMA, AAFP, AOA, ACEP. Info: Critical CAre Medicine Curse, Univ of Oklahoma Health Sciences Center, Rm 3 SP 400, PO Box 26901, Oklahoma City, OK 73190.
March 19-21	**NIH Consensus Development Conference: Surgery for Epilepsy**, Masur Auditorium, Warren Grant Magnuson Clinical Center, NIH, Bethesda. Info: Conference Registrar 301-468-MEET.
March 23-24	**The Environmental and Health Legacies of Nuclear Weapons Production**, Denver, CO, sponsored by Physicians for Social Responsibility. Info: PSR, 1000 16th St NW, #810, Washington, DC 20036 (202-785-3777).
May 2-4	**Cardiovascular Health Styles: Energizing for the 90s**. The Seventh Regions II and III Cardiovascular Risk Reduction Conference, Hershey Hotel, Philadelphia, PA. Info: D. Fedder DrPH 301-328-7613, FAX 301-328-7184; R. Ranberg 717-787-7073.
May 2-5	**American Trauma Society Seventeenth Annual Meeting**, Holiday Inn Crowne Plaza, Washington, DC. Info: Meeting Coordinator American Trauma Society, 1400 Mercantile Lane - Ste 188, Landover, MD 20785 (800-556-7890 or 301-925-8811).
May 9-11	**Clinical Auscultation of the Heart**, Georgetown University Medical Center, Washington, DC, sponsored by the American College of Cardiology and the Division of Cardiology, Department of Medicine, Georgetown University School of Medicine. Info: Registration Secretary, Extramural Program Dept, American College of Cardiology, 9111 Old Georgetown Rd., Bethesda, MD 20814 (800-253-4636 or 301-897-54090 ext 226).

Shady Grove Adventist Hospital, 9901 Medical Center Drive, Rockville, MD. Info: 301-279-6000.

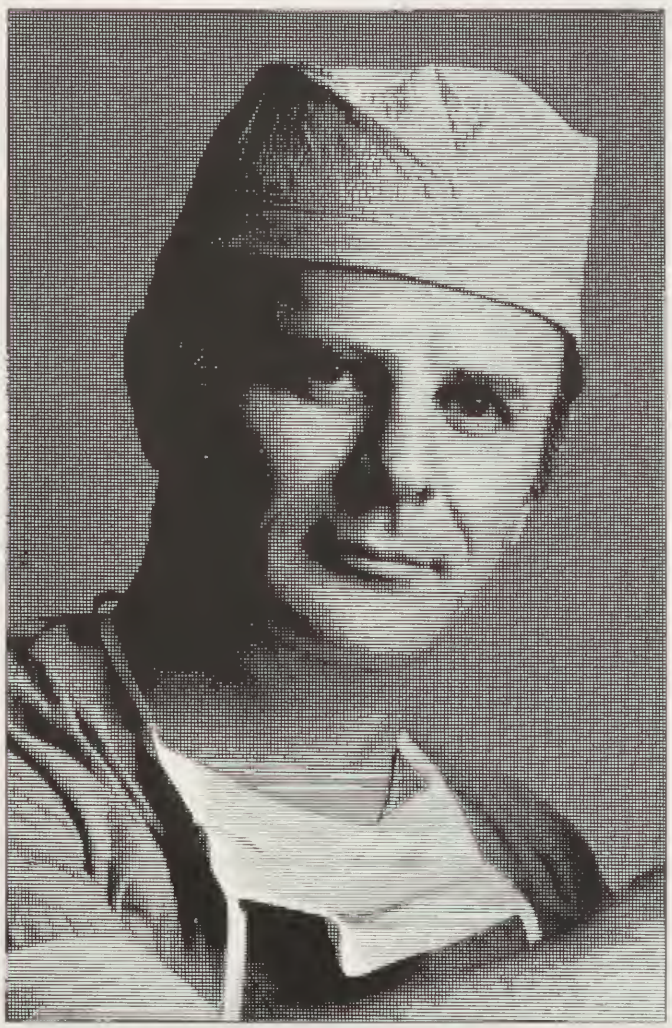
February 1	Common Adult Foot Disorders in Orthopedic Practices
February 2	Estrogen Replacement Therapy & Controversy
February 8	Clinical Implications of the Hepatitis C Assay
February 15	Legal Issues in Medical Practice Today ■

Physician Recognition Award Recipients

The AMA established the physician recognition award 1968 to enourage physician participation in continuing medical education and to recognize physicians who have voluntarily completed programs of continuing medical education. Med Chi congratulates the following Maryland physicians who received this award in September 1989:

Gary Joseph Antone MD
William Radford Coyle MD
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Nicholas J. Kohlerman MD
Brian N. Meringoff MD
Manouchehr Sadri MD
Geo E. Yannakakis MD
Hector P.C. Asuncion MD
Pedro Santos De Borja MD
Rafi Q. Iqbal MD
Andrew Monroe London MD
Judith F. Morales MD
Virendra K. Saxena MD
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Medical and Chirurgical Faculty of Maryland

May 9 - 11, 1990

at the Turf Valley Hotel and Country Club, Ellicott City, Maryland

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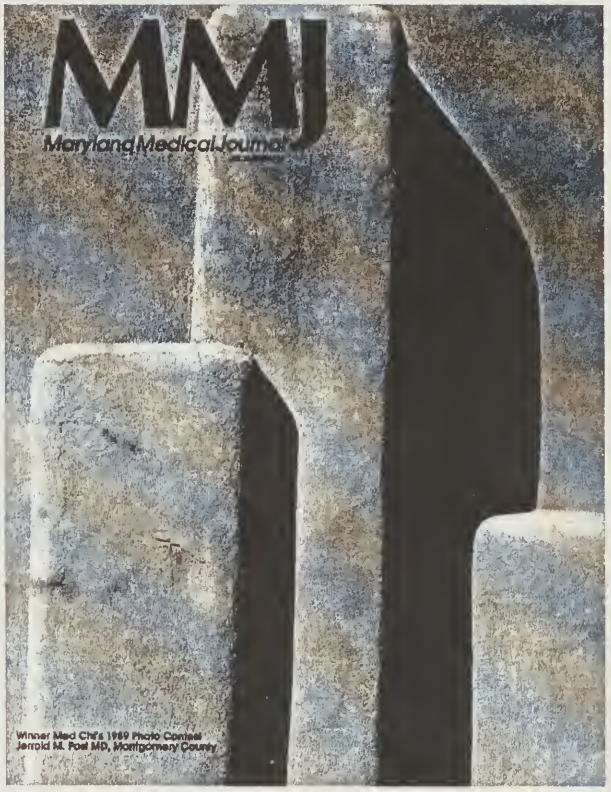
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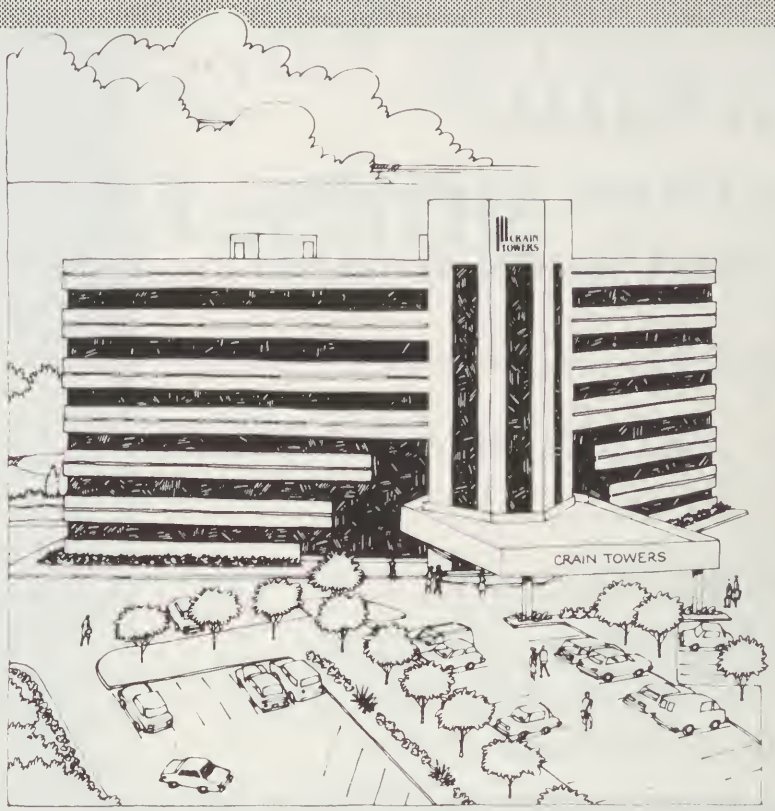
Eligibility

All members of the Faculty and members of the Auxiliary to the Medical and Chirurgical Faculty may enter. Professional photographers may not enter. Members of the Photo Contest Committee and their families are not eligible.

Contest Rules

1. Photographs may be submitted in two categories-- Black and White or Color.
2. Limit: three entries per person
3. Prints only, no smaller than 8x10 or larger than 11x14, will be accepted. If your favorite shot is a slide, you must have a print made to enter in the contest within these size ranges.
4. Entries must be matted or dry mounted. No framed photographs will be accepted.
5. Entries must have name address, and telephone number attached to the back of each photograph.
6. Entries may be mailed or brought to the Faculty Office, 1211 Cathedral Street, Baltimore, Maryland 21201 by the close of the business day on Friday, April 20, 1990.
7. Photographs entered in the contest will be on display at the Annual Meeting in May of 1990.
8. Prizes will be awarded to the FIRST AND SECOND place winners. Additional information about the prizes will be published in the Journal.
9. Winners will be announced at the Annual Meeting of the Medical and Chirurgical Faculty, May 9-11, 1990.
10. Photographs will NOT be mailed back. Photographs may be claimed at the exhibit area at the close of the Annual Meeting at noon on Friday, May 11, or at the Faculty Building thereafter.
11. The Faculty does not guarantee against loss or damage of any kind to the photographs submitted to the contest.

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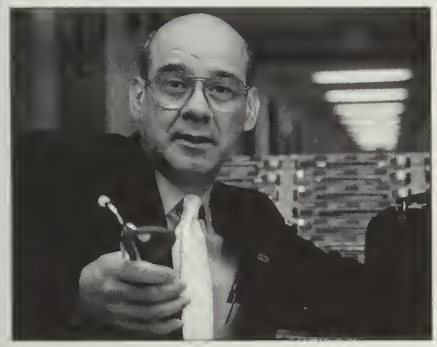
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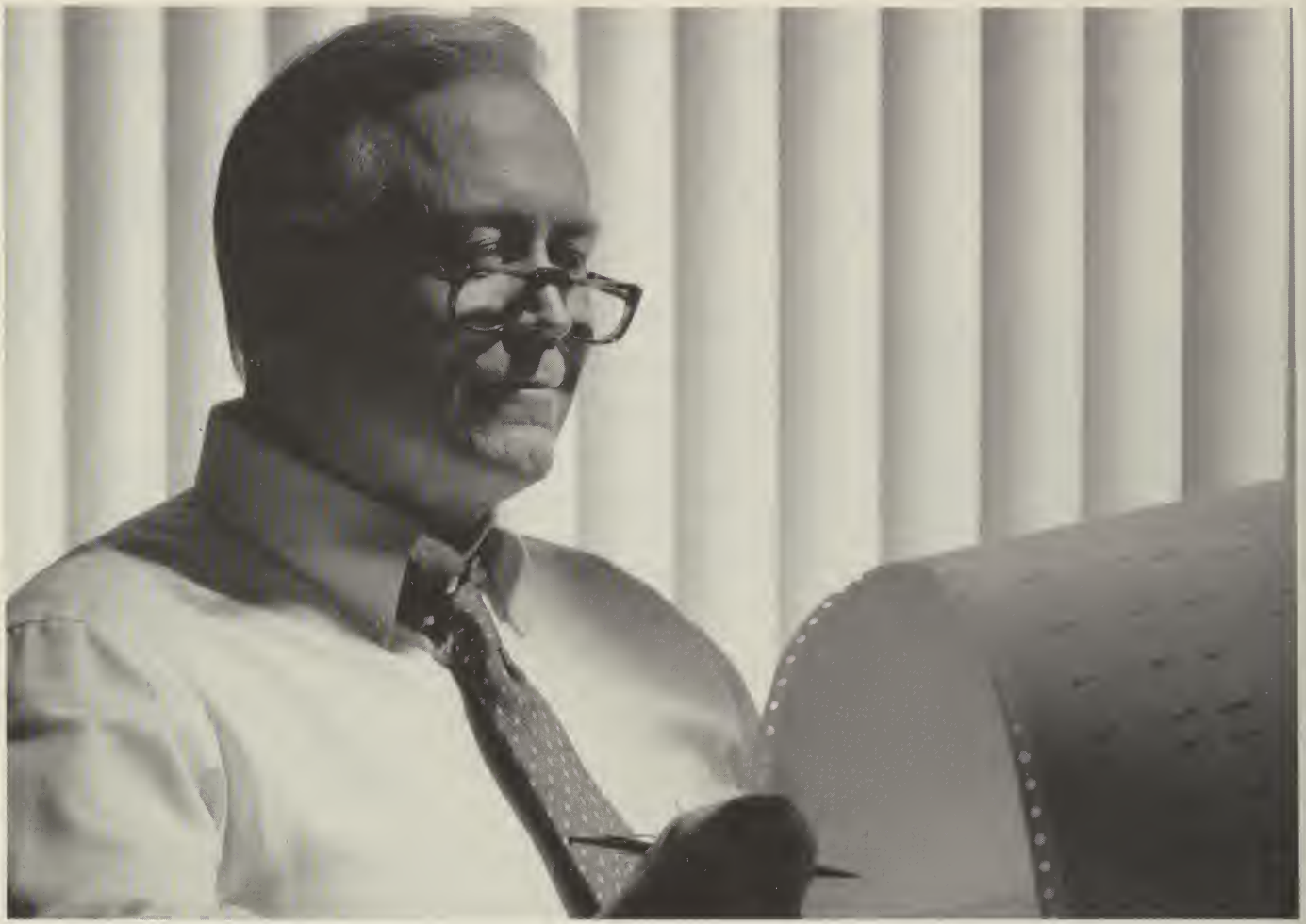
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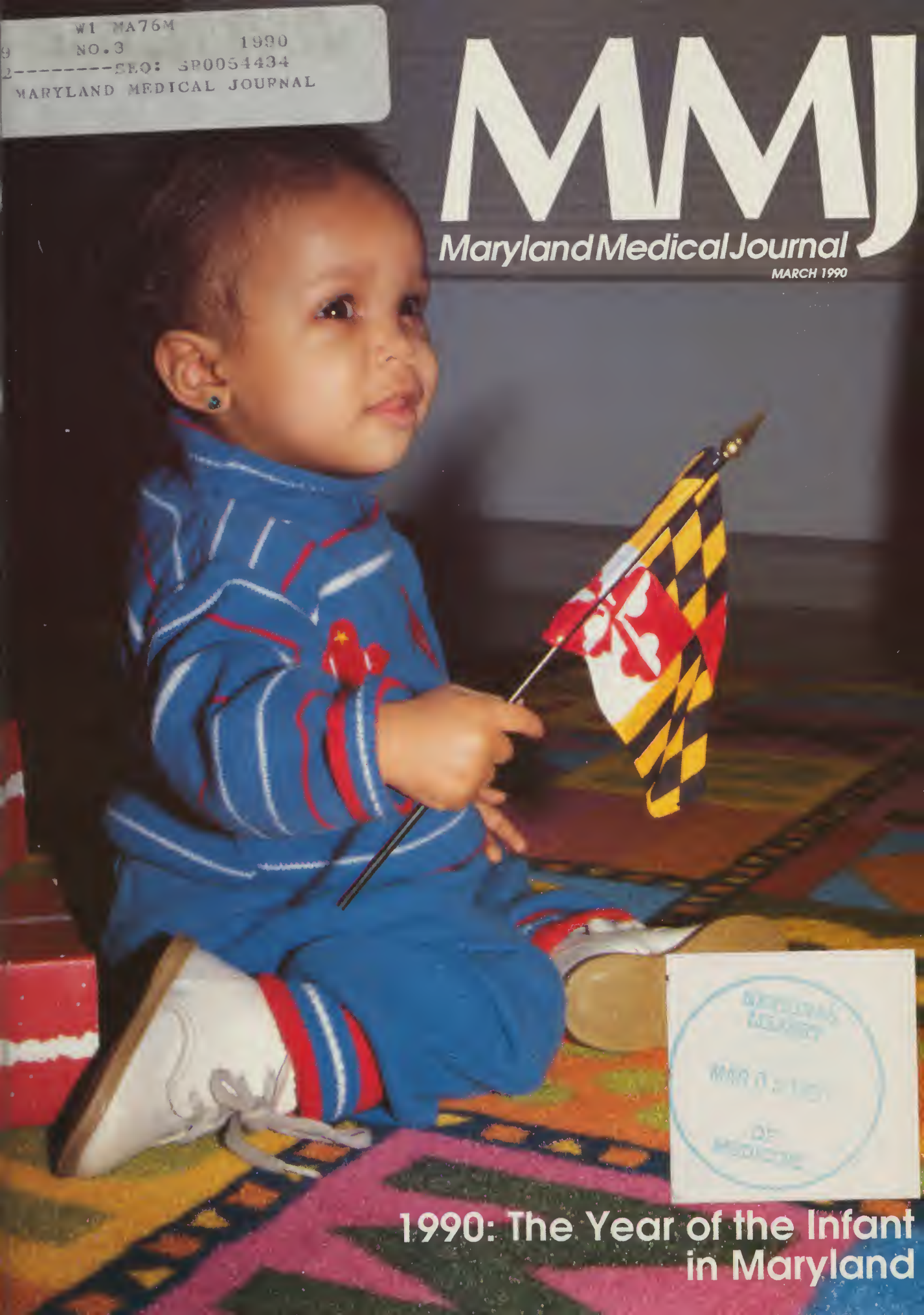
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MMJ

Maryland Medical Journal

MARCH 1990



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1990: The Year of the Infant in Maryland

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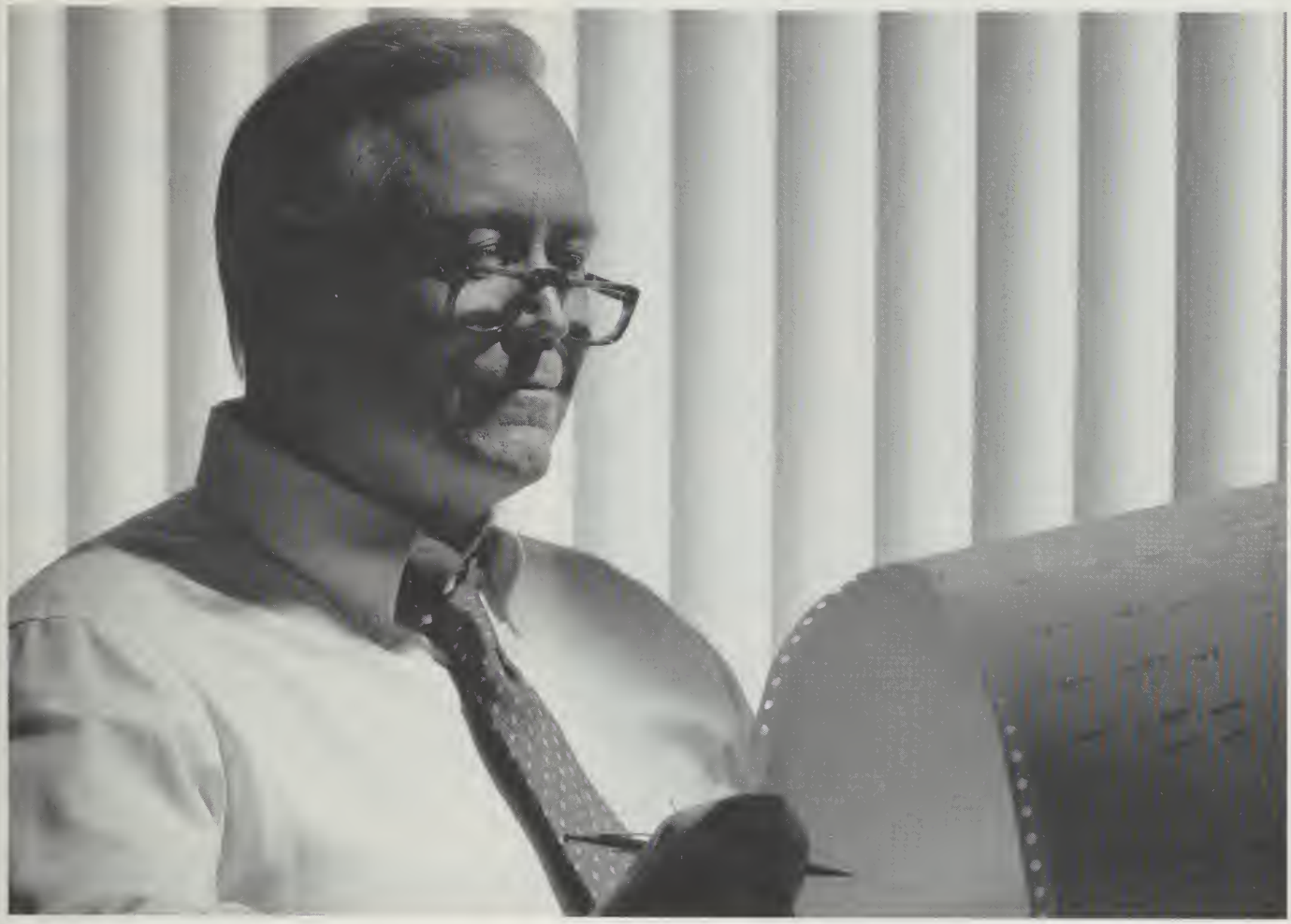
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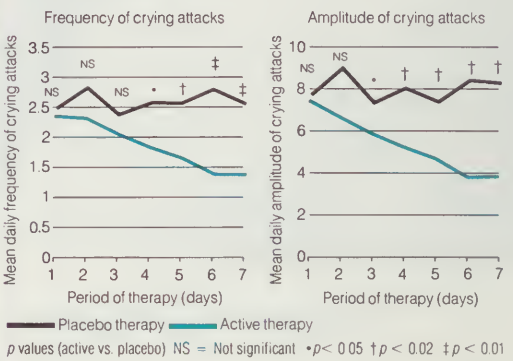
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1990 - The Year of the Infant

In January, Governor William Donald Schaefer declared 1990 the Year of the Infant in Maryland. A major focus of this statewide campaign is to help insure that children in Maryland are born healthy and stay healthy throughout their formative years.

The initiatives set forth in this statewide program set precedents for state involvement on a wide range of health issues of which physicians should be aware and a part, including creation of a national model infant center focusing on prevention and early intervention, housing for infants and children with AIDS, a model infant day care center for state employees, and enhancement of drug treatment programs to improve maternal health and to decrease infant mortality. Dr. Brodell's article on page 290 sheds light on specific issues physicians can be involved in.

Med Chi's Infant, Child and Adolescent Health Subcommittee is dedicated to the health of Maryland's youngest citizens during The Year of the Infant and every year. Our committee thoroughly supports this statewide campaign with the hope that improving the health of our children will make a better future.

We emphasize that funding for current programs such as Maternal Health and Family Planning, Child Health, and High Risk Maternal Referral Services needs to be continued. To reduce any service continuity provided to women and infants could place even more babies at risk. We are trying to help with new programs for long-term development; it would be taking a step backward for the state to reduce existing programs.

RONALD L. GUTBERLET, Chairperson
Infant, Child and Adolescent Health Subcommittee

On the cover is 13-month-old Dorian Boyd at St. Joseph Hospital Day Care Center.

Photo by Michelle Dunn.

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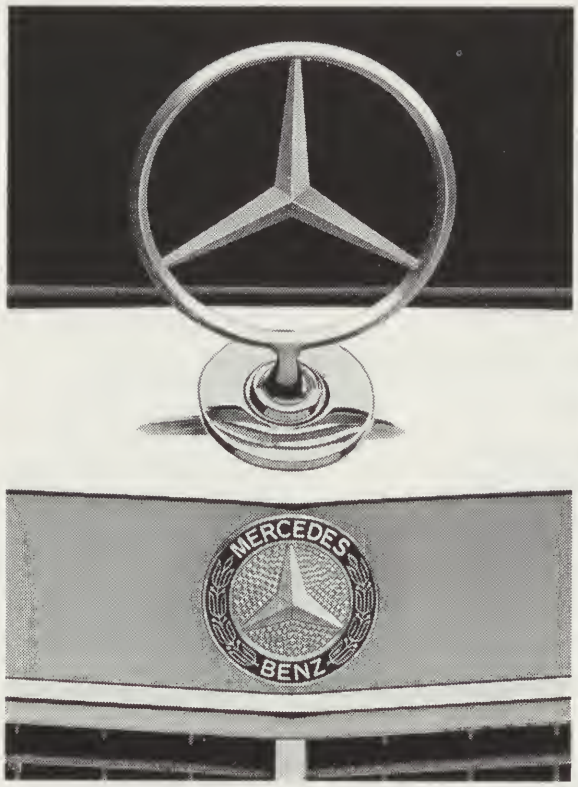
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MARCH 1990

Current Treatment Guidelines for Sexually Transmitted Diseases

The Centers for Disease Control published updated treatment guidelines for Sexually Transmitted Diseases (STD) in Morbidity and Mortality Weekly Report, September 1, 1989 Vol. 38, No. S-8.

In the last two issues we provided the treatment guidelines for early, late latent, cardiovascular and neurosyphilis, a protocol for syphilis diagnosis and treatment, guidelines for Penicillin Therapy, Jarisch-Herxheimer reaction, Persons Exposed to Syphilis, Syphilis in Pregnancy, Congenital Syphilis and Syphilis in HIV-infected Patients. In this issue, we will provide, abstracted from the above cited MMWR, guidelines for treatment of gonococcal infections. The 1989 Sexually Transmitted Diseases Treatment Guidelines have been reprinted in their entirety and are available from the local health departments.

Gonococcal Infections

Treatment of gonococcal infections in the United States is influenced by the following trends: 1) the spread of infections due to antibiotic-resistant *N.gonorhoeae*, including penicillinase-producing *N. gonorrhoeae* (PPNG), tetracycline-resistant *N. gonorrhoeae* (TRNG), and strains with chromosomally mediated resistance to multiple antibiotics; 2) the high frequency of chlamydial infections in persons with gonorrhea; 3) recognition of the serious complications of chlamydial and gonococcal infections; and 4) the absence of a fast, inexpensive, and highly accurate test for chlamydial infection.

All gonorrhea cases should be diagnosed or confirmed by culture to facilitate antimicrobial susceptibility testing. The susceptibility of *N. gonorrhoeae* to antibiotics is likely to change over time in any locality. Therefore, gonorrhea control programs should include a system of regular antibiotic sensitivity testing of a surveillance sample of *N. gonorrhoeae* isolates as well as all isolates associated with treatment failure.

Because of the wide spectrum of antimicrobial therapies effective against *N. gonorrhoeae*, these guidelines are *not* intended to be a comprehensive list of all possible treatment regimens.

Treatment of Adults

Uncomplicated Urethral, Endocervical, or Rectal Infections

Single-dose efficacy is a major consideration in choosing an antibiotic regimen to treat persons infected with *N. gonorrhoeae*. Another important concern is coexisting chlamydial infection, documented in up to 45% of gonorrhea cases in some populations. Until universal testing for chlamydia with quick, inexpensive, and highly accurate tests becomes available, persons with gonorrhea should also be treated for presumptive chlamydial infections. Generally, patients with gonorrhea infections should be treated simultaneously with antibiotics effective against both *C. trachomatis* and *N. gonorrhoeae*. Simultaneous treatment may lessen the possiblity of treatment failure due to antibiotic resistance.

Recommended Regimen

Ceftriaxone 250 mg IM once

plus

Doxycycline 100 mg orally 2 times a day for 7 days.

Some authorities prefer a dose of 125 mg ceftriaxone IM because it is less expensive and can be given in a volume of only 0.5 ml, which is more easily administered in the deltoid muscle. However, the 250-mg dose is recommended because it may delay the emergence of ceftriaxone-resistant strains. At this time, both doses appear highly effective for mucosal gonorrhea at all sites.

Alternative Regimens

For patients who cannot take ceftriaxone, the preferred alternative is **Spectinomycin** 2 g IM, in a single dose (*followed by* **doxycycline**).

Other alternatives, for which experience is less extensive, include **ciprofloxacin*** 500 mg orally once; **norfloxacin*** 800 mg orally once; **cefuroxime axetil** 1 g orally once with **probenecid** 1 g; **cefotaxime** 1 g IM once; and **ceftizoxime** 500 IM once. All of these regimens are *followed by* **doxycycline** 100 mg orally, twice daily for 7 days. If infection was acquired from a source proven *not* to have penicillin-resistant gonorrhea, a penicillin such as **amoxicillin** 3 g orally with 1 g **probenecid** *followed by* **doxycycline** may be used for treatment.

Doxycycline or tetracycline alone is no longer considered adequate therapy for gonococcal infections but is added for treatment of coexisting chlamydial infections. Tetracycline may be substituted for doxycycline; however, compliance may be worse since **tetracycline** must be taken at a dose of 500 mg 4 times a day between meals, whereas **doxycycline** is taken at a dose of 100 mg 2 times a day without regard to meals. Moreover, at current prices, tetracycline costs only a little less than generic doxycycline.

***Quinolones, such as ciprofloxacin and norfloxacin, are contraindicated during pregnancy and in children 16 years of age or younger.**

For patients who cannot take a **tetracycline** (e.g., pregnant women), **erythromycin** may be substituted (**erythromycin** base or stearate at 500 mg orally 4 times a day for 7 days *or* **erythromycin ethylsuccinate**, 800 mg orally 4 times a day for 7 days). See "Chlamydial Infections" for further information on management of chlamydial infection.

Special Considerations

All patients with gonorrhea should have a serologic test for syphilis and should be offered confidential counseling and testing for HIV infection. Most patients with incubating syphilis (those who are seronegative and have no clinical signs of syphilis) may be cured by any of the regimens containing β-lactams (e.g., ceftriaxone) or tetracyclines.

Spectinomycin and the quinolones (ciprofloxacin, norfloxacin) have not been shown to be active against incubating syphilis. Patients treated with these drugs should have a serologic test for syphilis in 1 month.

Patients with gonorrhea and documented syphilis and gonorrhea patients who are sex partners of syphilis patients should be treated for syphilis as well as for gonorrhea.

Some practitioners report that mixing 1% lidocaine (without epinephrine) with ceftriaxone reduces the discomfort associated with the injection (see package insert). No adverse reactions have been associated with use of lidocaine diluent.

Management of Sex Partners

Persons exposed to gonorrhea within the preceding 30 days should be examined, cultured, and treated presumptively.

Follow-Up

Treatment failure following combined **ceftriaxone/doxycycline** therapy is rare; therefore, a follow-up culture ("test-of-cure") is not essential. A more cost-effective strategy may be a reexamination with culture 1-2 months after treatment ("rescreening"); this strategy detects both treatment failures and reinfections. Patients should return for examination if symptoms persist after treatment. Because there is less long-term experience with drugs other than ceftriaxone, patients treated with regimens other than ceftriaxone/doxycycline should have follow-up cultures obtained for 4-7 days after completion of therapy.

Treatment Failures

Persistent symptoms after treatment should be evaluated by culture for *N. gonorrhoeae*, and any gonococcal isolate should be tested for antibiotic sensitivity. Symptoms of urethritis may also be caused by *C. trachomatis* and other organisms associated with nongonococcal urethritis (see "Nongonococcal Urethritis"). Additional treatment for patients with gonorrhea should be **ceftriaxone**, 250 mg, *followed by* **doxycycline**. Infections occurring after treatment with one of the recommended regimens are commonly due to reinfection rather than to treatment failure and indicate a need for improved sex-partner referral and patient education.

Pharyngeal Gonococcal Infection

Patients with uncomplicated pharyngeal gonococcal infection should be treated with **ceftriaxone** 250 mg IM once. Patients who cannot be treated with ceftriaxone should be treated with **ciprofloxacin** 500 mg orally as a single dose. Since experience with this regimen is limited, such patients should be evaluated with repeat culture 4-7 days after treatment.

Treatment of Gonococcal Infections in Pregnancy

Pregnant women should be cultured for *N. gonorrhoeae* (and tested for *C. trachomatis* and syphilis) at the first prenatal-care visit. For women at high risk of STD, a second culture for gonorrhea (as well as tests for chlamydia and syphilis) should be obtained late in the third trimester.

Recommended Regimen

Ceftriaxone 250 mg IM once

plus

Erythromycin base* 500 mg orally 4 times a day for 7 days.

Pregnant women allergic to β-lactams should be treated with **spectinomycin** 2 g IM once (*followed by* **erythromycin**). Follow-up cervical and rectal cultures for *N. gonorrhoeae* should be obtained 4-7 days after treatment is completed.

Ideally, pregnant women with gonorrhea should be treated for chlamydia on the basis of chlamydial diagnostic studies. If diagnostic testing is not available, treatment for chlamydia should be given. Tetracyclines (including doxycycline) and the quinolones are contraindicated in pregnancy because of possibly adverse effects on the fetus. Treatments for pregnant patients with chlamydial infection, acute salpingitis, and disseminated gonorrhea in pregnancy are described in respective sections.

Disseminated Gonococcal Infection (DGI)

Hospitalization is recommended for initial therapy, especially for patients who cannot reliably comply with treatment, have uncertain diagnoses, or have purulent synovial effusions or other complications. Patients should be examined for clinical evidence of endocarditis or meningitis.

Recommended Regimens - DGI Inpatient

Ceftriaxone 1 g, IM or IV, every 24 hours

or

Ceftizoxime 1 g, IV, every 8 hours

or

Cefotaxime 1 g, IV, every 8 hours

Patients who are allergic to β-lactam drugs should be treated with **spectinomycin** 2 g IM every 12 hours.

***Erythromycin** stearate 500 mg or **erythromycin ethylsuccinate** 800 mg or equivalent may be substituted for erythromycin base.

When the infecting organism is proven to be penicillin-sensitive, parenteral treatment may be switched to **ampicillin** 1 g every 6 hours (or equivalent).

Patients treated for DGI should be tested for genital *C. trachomatis* infection. If chlamydial testing is not available, patients should be treated empirically for coexisting chlamydial infection.

Reliable patients with uncomplicated disease may be discharged 24-48 hours after all symptoms resolve and may complete the therapy (for a total of 1 week of antibiotic therapy) with an oral regimen of **cefuroxime axetil** 500 mg 2 times a day *or* **amoxicillin** 500 mg with clavulanic acid 3 times a day *or*, if not pregnant, **ciprofloxacin** 500 mg 2 times a day.

Meningitis and Endocarditis

Meningitis and endocarditis caused by *N. gonorrhoeae* require high-dose IV therapy with an agent effective against the strain causing the disease, such as **ceftriaxone** 1-2 g IV every 12 hours. Optimal duration of therapy is unknown, but most authorities treat patients with gonococcal meningitis for 10-14 days and with gonococcal endocarditis for at least 4 weeks. Patients with gonococcal nephritis, endocarditis or meningitis, or recurrent DGI should be evaluated for complement deficiencies. Treatment of complicated DGI should be undertaken in consultation with an expert.

Adult Gonococcal Ophthalmia

Adults and children over 20 kg with nonsepticemic gonococcal ophthalmia should be treated with **ceftriaxone** 1 g IM once. Irrigation of the eyes with saline or buffered ophthalmic solutions may be useful adjunctive therapy to eliminate discharge. All patients must have careful ophthalmologic assessment, including slit-lamp examination for ocular complications. Topical antibiotics alone are insufficient therapy and are unnecessary when appropriate systemic therapy is given. Simultaneous ophthalmic infection with *C. trachomatis* has been reported and should be considered for patients who do not respond promptly.

Gonococcal Infections of Infants and Children

Child abuse should be carefully considered and evaluated for any child with documented gonorrhea.

Treatment of Infants Born to Mothers with Gonococcal Infection

Infants born to mothers with untreated gonorrhea are at high risk of infection (e.g., ophthalmia and DGI) and should be treated with a single injection of **ceftriaxone** (50 mg/kg IV or IM, not to exceed 125 mg). Ceftriaxone should be given cautiously to hyperbilirubinemic infants, especially premature infants. Topical prophylaxis for neonatal ophthalmia is not adequate treatment for documented infections of the eye or other sites.

Treatment of Infants with Gonococcal Infection

Infants with documented gonococcal infections at any site (e.g., eye) should be evaluated for DGI. This evaluation should include a careful physical examination, especially of the joints, as well as blood and CSF cultures. Infants with gonococcal ophthalmia or DGI should be treated for 7 days (10 to 14 days if meningitis is present) with one of the following regimens:

Recommended Regimen

Ceftriaxone 25-50 mg/kg/day IV or IM in a single daily dose

or

Cefotaxime 25 mg/kg IV or IM every 12 hours.

Alternative Regimen

Limited data suggest that uncomplicated gonococcal ophthalmia among infants may be cured with a single injection of **ceftriaxone** (50 mg/kg up to 125 mg). A few experts use this regimen for children who have no clinical or laboratory evidence of disseminated disease.

If the gonococcal isolate is proven to be susceptible to penicillin, **crystalline penicillin G** may be given. The dose is 100,000 units/kg/day given in 2 equal doses (4 equal doses per day for infants more than 1 week old). The dose should be increased to 150,000 units/kg/day for meningitits.

Infants with gonococcal ophthalmia should receive eye irrigations with buffered saline solutions until discharge has cleared. Topical antibiotic therapy alone is inadequate. Simultaneous infection with C. trachomatis has been reported and should be considered for patients who do not respond satisfactorily. Therefore, the mother and infant should be tested for chlamydial infection.

Gonococcal Infections of Children

Children who weigh $\geq$45 kg should be treated with adult regimens. Children who weigh $<$45 kg who have uncomplicated vulvovaginitis, cervicitis, urethritis, pharyngitis, or proctitis should be treated as follows:

Recommended Regimen

Ceftriaxone 125 mg IM once.

Patients who cannot tolerate ceftriaxone may be treated with:

Spectinomycin 40 mg/kg IM once.

Patients weighing $<$45 kg with bacteremia or arthritis should be treated with ceftriaxone 50 mg/kg (maximum 1 g) once daily for 7 days. For meningitis, the duration of treatment is increased to 10-14 days and the maximum dose is 2 g. Children $\geq$8 years of age should also be given **doxycycline** 100 mg 2 times a day for 7 days. All patients should be evaluated for coinfection with syphilis and *C. trachomatis*. Follow-up cultures are necessary to ensure that treatment has been effective.

Prevention of Ophthalmia Neonatorum

Instillation of a prophylactic agent into the eyes of all newborn infants is recommended to prevent gonococcal ophthalmia neonatorum and is required by law in most states. Although all regimens listed below effectively prevent gonococcal eye disease, their efficacy in preventing chlamydial eye disease is not clear. Furthermore, they do not eliminate nasopharyngeal colonization with *C. trachomatis*. Treatment of gonococcal and chlamydial infections in pregnant women is the best method for preventing neonatal gonococcal and chlamydial disease.

Recommended Regimen

Erythromycin (0.5%) opthalmic ointment, once

or

Tetracycline (1%) opthalmic ointment, once

or

Silver nitrate (1%) aqueous solution, once.

One of these should be instilled into the eyes of every neonate as soon as possible after delivery, and definitely within 1 hour after birth. Single-use tubes or ampules are preferable to multiple-use tubes.

The efficacy of tetracycline and erythromycin in the prevention of TRNG and PPNG ophthalmia in unknown, although both are probably effective because of the high concentrations of drug in these preparations. Bacitracin is *not* recommended.



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For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

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VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed, caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions.*)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy – Category C. There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); cardiac arrest; pulmonary embolism and infarction, rhythm disturbances: atrial fibrillation; palpitation.

Digestive: Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis, stomatitis.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Herpes zoster, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension.* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects.*) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

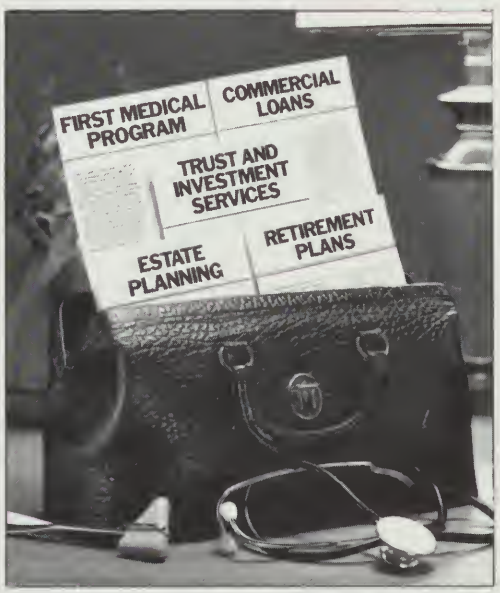
Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia: In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure*, WARNINGS, and PRECAUTIONS, *Drug Interactions.*) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486.

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Executive Director's Newsletter

March 1990

New Physicians Credentialing Service

Med Chi and the Maryland Hospital Association (MHA) will be partners in a new nonprofit, freestanding organization, Healthcare Credentials Verification, Inc. — A Cooperative Service of Maryland Hospitals and Physicians. This organization will collect and disseminate the information hospitals need to credential and recredential physicians for medical staff appointment and reappointment. The organization will be governed by a twelve-member board of directors, six members appointed by each of the partners. Joseph Jensen, Med Chi's director of support services on a leave of absence from Med Chi, will coordinate the organization's activities, design the system specifications, and work out the details of implementation. Current plans call for the service to phase in new physician applications and reappointments beginning June 1, 1990. The organization is scheduled to be fully operational by September 1, 1990. Med Chi and the MHA are pleased to offer this cooperative initiative to physicians and hope that this service will improve the efficiency and quality of care both are committed to bring to Maryland citizens.

Maryland Medical Journal Readers' Survey

In an effort to improve service to Med Chi members, this issue of the *MMJ* features a Readers' Survey (following page 278). The *MMJ* is <u>your</u> publication and should reflect your interests and ideas. Please take a moment to fill out and return this survey. Survey findings will be published in a future issue.

1990 Annual Meeting

Mailed to you with this issue of *MMJ* is the preliminary program for Med Chi's 192nd Annual Meeting, "The 1990's: What Can We Expect?" to be held on May 9-11, 1990 at the Turf Valley Hotel and Country Club in Ellicott City. Speakers at the meeting include plenary speaker AMA Trustee Lonnie Bristow MD, Physician Payment Review Commissioner Thomas Reardon MD, Immediate Past-President of the AMA Council on Legislation John Seward MD, Chairman of the AMA Council on Long Range Planning and Development Palma E. Formica, Secretary for the AMA Council on Legislation Ross N. Rubin, Esq., and special guest lecturer Victor A. McKusick MD, Professor of Medical Genetics from The Johns Hopkins School of Medicine. Scientific sessions will cover a wide range of topics such as Managed Care, Breast Reconstruction, Potential Changes in Physician Payment, and Medical Waste. Category I CME credits will be awarded to all physicians attending scientific sessions. Med Chi members who visit the technical exhibits will be eligible to win the Exhibitors Sweepstakes. All physicians attending this meeting

should complete and mail in the registration form on page 19 of the preliminary program.

1990 Semiannual Meeting in Bermuda

The Southampton Princess Hotel in Bermuda will be the site of Med Chi's 1990 Semiannual meeting on September 5-9. The trip includes roundtrip airfare, four nights accommodations at the Southampton Princess Hotel, and daily dinner and breakfast for a cost of $1,010 per person. Med Chi's registration fee for this meeting is $500. To register for the meeting, please complete the registration form (on page 18 of the 1990 Annual Meeting preliminary program) and mail in the Med Chi registration fee and $200 deposit. Deadline for registration is April 1, 1990. For questions about the meeting contact Med Chi's Professional Education and Meeting Management Department at 539-0872 or in MD 1-800-442-1056.

Med Chi Southern Regional Conferences

All members from southern Maryland are invited to attend Med Chi's Southern Regional Conference to be held at the Hawthorne Country Club in La Plata, MD on February 22, 1990 from 4:30 to 8:30 pm. The meeting will feature a message from Med Chi President Raymond M. Atkins MD as well as updates on several medical and legislative issues including malpractice insurance, and prescription drug control, and dispensing. Paul M. Fischer MD, from the Medical College of Georgia will be the plenary speaker for this meeting and will discuss "The Physician's Office Laboratory."

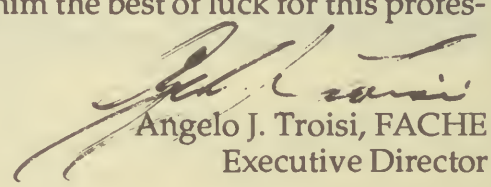
Med Chi thanks Guillermo E. Sanchez MD for his efforts as coordinator of this conference. For more information about the Southern Regional Conference, contact Med Chi's Professional Education and Meeting Management Department at 539-0872 or in MD 1-800-492-1056.

Med Chi Eastern Regional Conference

Physicians from the eastern shore are strongly encouraged to attend Med Chi's Eastern Regional Conference at the Cambridge Yacht Club in Cambridge, MD on March 22, 1990 from 4:30 to 8:30 p.m. Med Chi thanks Paul A. Stagg MD for his efforts in coordinating this program. For more information about this meeting, contact Med Chi's Professional Education and Meeting Management Department at 539-0872 or in MD 1-800-492-1056.

Med Chi's Assistant Executive Director to work at AMA

Med Chi's Assistant Executive Director, Michael A. Murray, will be leaving Med Chi in March to work in the Department of Public Affairs at the AMA in Chicago. Although Mike's talents will be seriously missed, we all wish him the best of luck for this professional advancement.



Angelo J. Troisi, FACHE
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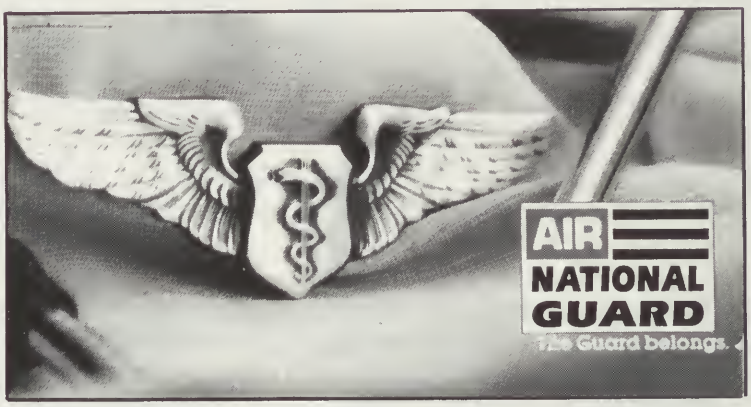
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Standards and Norms in Small Area Analysis

Vahé A. Kazandjian MPH and James Hudson MD

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Description of the type and amount of variation in the use of health care services across geographic areas is a well-established method of inquiry encompassing the analysis of both medical and surgical treatment modalities.

The description of the types and amount of variation in the use of health care services across geographic areas is no longer a burgeoning health services research field. It is a well-established method of inquiry that has encompassed the analysis of both medical (acute and chronic) and, especially, surgical treatment modalities. Its underlying purpose is the search for uniformity following the identification of variability among small geographic areas. When variations are identified through comparison of incidence rates in populations of these areas, a number of explanatory factors are posited to be determinants of the variability. There are four groups or families of factors frequently encountered in published research on small area variations in healthcare utilization rates:

- population characteristics
- differential availability of resources across areas
- physician practice style
- the state of medical knowledge

These factors and their importance in understanding the variation in utilization rates in Maryland have been discussed elsewhere.[1] In this article we discuss how state-of-the-art medical knowledge is reflected in the interarea differences in healthcare utilization.

Variations and Definitions

The evolution of medical knowledge in the past few decades has been tremendous. The diagnostic, therapeutic, and palliative panacea available to physicians has opened new frontiers in patient and disease management. Oftentimes, however, a new technology, pharmacopeia, or management strategy have been applied with only partial knowledge of their efficacy, efficiency, and effectiveness. Examples include the protective effect of carotid endarterectomy for stroke; the benefits of total compared to par-

tial mastectomy; the indications for hysterectomy; and, perhaps, the use of aspirin in the primary prevention of coronary heart disease. Pending the results of large-scale clinical trials or case control studies, physicians, both individually and as groups, have applied their philosophies and beliefs about the usefulness of a certain disease or patient management strategy. In general, this phenomenon is assumed to be the underlying reason for differences in physicians' practice styles, whether as individuals or groups of physicians.[2,3]

The inherent potential for variability in the process of providing care is hypothesized for association with differences in the frequency by which specific population groups use various health care services. Population-based outcome rates are captured through epidemiological methods, one of which is small area analysis.

The purpose of small area variation analysis is to calculate health care utilization rates in population groups residing in different geographic areas and to explain these variations based on the four groups of factors just described. For example, if Area 1 has three times more cesarean sections than Area 2, the goal of the analysis will be to identify the healthcare resources (physicians, nurses, number of beds, etc.) in both areas. In addition, characteristics of the population at risk (for example, average age group, educational attainment of women in the child-bearing age group, their income levels, and the number of children per family) would be calculated and included as potential explanatory factors for the differences across areas and cesarean section rates. Finally, it might be useful to identify the medical schools or residency programs from which the practicing physicians received their training. Since differences in physician philosophy and propensity for the use of certain treatment modalities often are associated with differences in the frequencies in application of those modalities, the latter descriptive characteristic may help identify the types and places of training predisposing physicians to certain practice styles.

From the above discussion, we can deduce that the variability among physicians is to be expected given the nonuniform medical evidence relating to the outcome of different treatment modalities, the variability in patients, and, perhaps, the variability of disease across time and place.

The variability in definitions of patient management methods is reflected in how the outcomes of these methods are described and measured.

Standards and Norms

Any scientific discipline has to demonstrate three essential characteristics: replicability, uniformity, and parsimony.

Replicability is a condition that transcends both interpersonal and interstudy variability. If the same technology and knowledge applied in different settings on similar groups of patients produces *variable* results, then the science underlying the use of that technology should be incomplete. To contrast and to evaluate observations that are highly variable require not only an understanding of what affects the phenomenon under consideration but also how is it affected. Thus, linking the nature of the input with the output determines correlations or, sometimes, causality. The identification of any cause-effect relationship is of paramount importance to understanding why a certain manifestation was observed as well as providing the possibility of forecasting future events. The quest for uniformity is, therefore, necessary not only to achieve comparability but also to acquire the predictive power that links the process to the outcome. Finally, parsimony. Achieving similar results through different paths of management and treatment may not always be justifiable. For example, when a dose-response relationship has been discovered between a management strategy and its outcome, efficiency will be reached by eliminating the unnecessary or surfeit management paths even if they lead to a uniform outcome.

It is immediately clear that achieving absolute uniformity when dealing with highly variable entities, such as patients, diseases, settings, and physicians, is indeed a formidable task. In other words, defining *standards* for care based on replicability of the process and outcome across populations, physicians, and regions is the challenge modern medicine seems to have undertaken.

Can standards be achieved? A standard is defined as a nonrelative entity (for example, kilograms, miles, or milliliters). According to Webster's *Dictionary*, a standard is "anything taken by general consent as a basis of comparison." Given the lack of consensus among physicians regarding treatment modalities of numerous health conditions,[4,5] standards of care as described above are not abundant.

Is it possible to have a standard that applies to different physicians, populations, and cultures within the continuously evolving biomedical and sociological sciences? Can a standard for the reasons of hospitalization for pneumonia be determined and accepted by physicians practicing in Florida, Oregon, and Mississippi? Further, shouldn't a true standard in medical science cut across continents, cultures, and time?

The conditions for a standard of care as defined in this article may be difficult to achieve without passing through precursors of standards. One such precursor is the norm. What is a norm? A norm is the most generally accepted definition or description of a phenomenon in the *frame of geography and time*. For example, there might not be a standard length of stay in the United States for uncomplicated cholecystectomy patients, but geographic analysis may indicate that the average for the northeast United States is X days, whereas the average for the southwest United States is Y days. Assuming there are no significant differences across populations (dietary habits,

genetics, etc.), it is possible that most physicians in the Northeast practice according to some regional consensus about the treatment and hospitalization of patients with specific conditions and physicians in the Southwest practice according to another regional set of management philosophy. These regional consensuses can be called *norms of care* that have large followers in the medical and healthcare professions.

It is not uncommon to find the two definitions of a norm and a standard used interchangeably in medical and health services research literature. Such a lack of specificity in definitions makes the interpretation and use of comparative analyses results (for example, small area variation analysis) even more difficult. The distinction between standards and norms is not a juggling act of semantics. A more parsimonious and specific use of those definitions would contribute not only to a better understanding of why different philosophies on the application of patient and disease management modalities exist among physicians across areas but also would facilitate the development of the future steps in consensus building within the medical profession. Perhaps the most successful is a stepwise approach that starts with the identification of local or regional differences in utilization rates.

Such an approach has been tried and has been encouraging. In fact,

> physicians become motivated to undertake serious re-examinations of the scientific basis for their clinical decisions and take actions to obtain more information on the outcome implications of common treatments. Such efforts by academic as well as practicing physicians, hold promise for improving scientific basis of medical practice.[5]

Clearly, the ultimate goal is to improve clinical decision through better assessment of the patterns of delivery of care. The methods used for this end are regional or local reviews of outcome statistics (possibly combining available data sets with new controlled clinical trials) and the development of a uniform set of indications or guidelines. The collected data should be statistically representative of the clinical phenomena under study. Always, according to Wennberg,

> [His] experiences indicate that information and practice variations, when used in a program of feedback that includes epidemiologic, biostatistical, educational, and financial support, motivates practicing physicians to take the necessary steps to improve clinical decision making.[6]

The primary purpose for the development of norms is to provide physicians and other healthcare professionals a benchmark, threshold, or reference point for outcome rates. Through comparison to the reference point, researchers will be able to test the hypothesis that differences in physicians' practice styles result from differences in the application of clinical decision making. Although in this article we stress the fact that physicians will benefit from the findings of small area variation analysis in directing their attention to issues of clinical decision making, sometimes the findings of small area variation analysis indicate that differences in outcome rates most probably result from differences in population characteristics and their abilities to demand services. In fact, as mentioned at the outset and throughout this discussion, patient predisposing factor (cultural, genetic, and other) may explain more about the variation in the use rate in an area than does physician practice style.

Identifying Standards? Norms?

Small area analysis cannot identify standards of care. It can, however, uncover and discover patterns of utilization rates that can be used as reference norms for the most frequently used healthcare services. If the number of areas and repetitive studies identify a very similar pattern of utilization, it becomes worthwhile to investigate the possibility of describing a regional norm. Such an endeavor should be undertaken with extreme caution and through robust statistical methodologies. It always should be kept in mind that geographic analysis of utilization rates describes aggregate patterns and that extrapolation from the aggregate to the individual patient is not possible. This erroneous exercise is referred to as the "ecological fallacy," an interpretation error that can affect any epidemiological study.

If true patterns are consistently reported within a large area, the average pattern can be used as a regional norm to identify aberrant utilization rates. If, through peer review and patient analysis, it is identified that those aberrant observations were due to significant deviations from the regional norms, action would be taken to identify the reasons for those deviations. Without further analysis, the findings of small area analysis cannot be used to reach a decision concerning the desirability of the care provided. Such hastily reached conclusions can become barriers toward the achievement of increasing uniformity and consensus in the application of medical science.

Conclusion

When dealing with patients, physicians, and the evolving nature of medical science, variability in treatment modalities and utilization patterns is expected. Regionally and nationally conducted small area variation analyses of healthcare utilization rates can assist health care providers in determining the extent to which these variations are acceptable. The ultimate challenge is to identify the encroachment of those variations on the appropriateness of care.

References

1. Kazandjian VA, Dans PE, Scherlis L. What physicians should know about small area variation analysis. MMJ 1989;36:447-81.
2. Eddy DM. Variations in physician practice: The role of uncertainty. Health Aff Summer 1984:74-89.
3. Eddy DM. The quality of medical evidence: Implications of quality of care. Health Aff Spring 1988:19-32.
4. Fink A, Kosecoff J, Chassin M, Brock RH. Consensus methods: Characteristics and guidelines for use. Am J Public Health 1984:74:979-83.
5. Wennberg JE. Improving the medical decision-making process. Inquiry Spring 1988:99-106.
6. Wennberg JE. Dealing with medical practice variations. Health Aff Summer 1984:6-32.

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Peripheral Vascular Disease in Diabetes Mellitus

DeWitt E. DeLawter MD

Dr. DeLawter is Medical Director, Diabetes Education Program, Suburban Hospital, Bethesda, MD.

In caring for diabetic patients, we must broaden our focus beyond just treatment of hyperglycemia and begin to view diseases of the vascular system as critical sites for preventive efforts.

With the discovery and use of insulin almost everyone concluded that diabetes mellitus and its problems had been cured. If properly managed, patients were no longer dying of ketoacidosis. But as people with diabetes lived longer, it became obvious they were prone to infections. With the advent of antibiotics it again appeared that diabetic patients could live as long as their nondiabetic counterparts. It gradually became apparent that with this increased longevity, arteriosclerosis and atherosclerosis were causing more problems in diabetic patients than in the population at large. Now the challenge is to better understand the mechanism of the development of peripheral vascular disease (PVD), the risk factors and their control, and the management of the complications if they occur.

Let us begin our discussion with some definitions:

Atherosclerosis A lesion of large and medium size arteries, with deposits in the intima of yellowish plaques containing cholesterol, lipoid material, and lipophage.

Arteriosclerosis A condition marked by loss of elasticity, thickening and hardening of the arteries.

Arteriosclerosis obliterans Arteriosclerosis of the tunica intima causing obliteration of the artery lumen.

Peripheral arteriosclerosis Arteriosclerosis of the extremities.

Pathophysiology

Atherosclerosis, a process of vascular degeneration, occurs in response to intimal damage. The initial injury may result from hypertension, hyperglycemia, or hyperlipidemia. Platelets in the patient with diabetes have enhanced adhesiveness and a tendency to aggregate, piling up on the injured intima and beginning plaque formation. Circulating lipids allow fat material to enter the gradually enlarging plaque. Finally diabetes may cause general defects in cellular function. Plaque formation finally consists of deposits of lipids, platelets, muscle cells, and debris. With time, plaques slowly enlarge until the passage of blood through the lumen is compromised.[1-4]

Atherosclerosis tends to occur at an earlier age and with greater severity in the diabetic than in the nondiabetic population, matched for other variables. Heart attacks and strokes are about twice and gangrene about five times as likely to occur in patients with overt diabetes than in the general population. Patients with insulin-dependent diabetes appear to have the same degree of risk as those with noninsulin dependent disease. Arteriosclerosis includes those with fatty intimal plaques as well as those with severe diffuse fibrosis.

Arterial Insufficiency

The earliest symptom of arterial insufficiency is the appearance of claudication: a pain, numbness, or aching of the leg brought on by exercise and relieved by rest. The location of the discomfort may be anywhere from the buttock to the foot depending on the location of the occlusion in the artery. With progression of the disease, pain or aching may occur at rest, usually at night, and can be relieved by elevation of the head of the bed or placing the feet in a dependent position, allowing increasing blood volume to reach the extremities. In the presence of neuropathy the pain may be blunted or blurred. Sometimes the patient describes a sensation of wearing socks. Another symptom may be the development of skin necrosis with or without a history of trauma to the area.

Palpation of the pulses from the groin to the ankle will help locate the level of vascular obstruction, if present. The intensity of the pulse can be graded from 4 plus (excellent) to zero (not palpable). If more than 50 percent of a large vessel (aorta, iliac, or femoral) lumen is blocked a thrill may be felt on palpation over the area or a bruit noted if one listens over the area with a stethoscope. If the examiner uses both hands with the fingertips of one overlapping those of the other, it is possible to obtain just the correct amount of pressure without losing an accurate sense of touch. Both the posterior tibial and dorsalis pedis pulses should be easily recognized if the vessels are normal.

Skin temperature Although expensive mechanical devices are available for testing temperature and the location changes in the foot and ankle area, simple palpation and comparison of one extremity with its counterpart is often adequate to locate areas of vascular insufficiency.

Nutrition If the skin appears pale, thin, and there is a diminution of subcutaneous tissue, arterial circulation is poor. The absence of hair growth on the dorsum of the foot and abnormal nail formation are further proof of ischemia and poor nutrition to the area.

Sweating The foot suffering from vascular insufficiency is both cold and dry. If sweating is noted, vasospasm rather than occlusion is probably present.

Rubor on dependency Redness may develop slowly on dependency of the lower extremity if the circulation is poor. This is due to the slow flow of blood in the dilated capillaries beneath the skin.

Venous filling time From the elevated to the dependent position of a leg the venous filling time of more than 20 seconds is a positive sign of arterial insufficiency.

Sensation Lack of sensation is usually due to neuropathy but may accompany sudden arterial occlusion.

Motor power Sudden footdrop or other paralysis may be due to severe vascular occlusion more proximally or neuropathy.

Noninvasive Testing

Oscillometry A instrument (oscillometer) is used to measure the amplitude and strength of pulses over the area being examined. It does not provide any information as to the amount of collateral circulation.

Doppler The Doppler system is a continuous-wave ultrasound system that has been used for noninvasive evaluation of PVD for many years. The instrument directs an ultrasound wave toward the blood vessel. When the wave front strikes a moving object such as a blood cell, the wave is reflected back to the crystal at a different frequency, creating the Doppler effect. The system can be used to study all major peripheral arteries with blood pressures or arterial velocity signals.

The first velocity signal corresponds to the rapid flow of blood during systole and is high pitched. It is followed by a brief second sound that probably represents the flow reversal in early diastole. Finally, the third sound is low pitched as forward flow returns. When a high-pitched, multiphasic signal is audible over a peripheral vessel, significant proximal stenosis or resistance is unlikely.

These signals also can be recorded on a graphic printout. If there is partial stenosis the first sound is blunted and the second and third sounds diminished. If there is complete occlusion, the curve is essentially flat.

The Doppler is also used for measuring blood pressures. Doppler systolic pressures are usually taken over the dorsalis pedis or posterior tibial pulses with the cuff at the ankle. Normal pressures at the ankle will be equal to or slightly greater than the arm pressure. If the ankle pressure is 50 percent or less than the arm pressure, severe PVD is indicated. Doppler pressures used in evaluating the probability of claudication and rest pain also are helpful in predicting the healing of foot lesions.

Segmental blood pressures are used to identify the level or area of obstruction. Segmental pressures are obtained using cuffs placed high on the thigh, above the knee, below the knee, and above the ankle. Measurement of systolic pressure is taken at the dorsalis pedis or posterior tibial pulses. By consecutively inflating the cuffs, segmental pressures can be obtained. All pressure gradients should have a fall of less than 30 mmHg above the brachial pressure. In the presence of aortic or bilateral iliac disease the ankle/arm pressure index will be less than one and all segmental gradients

less than 30 mmHg. In iliac disease only the upper thigh on the affected side will be significantly lower.

At least 5 to 10 percent of diabetic patients with severe PVD may have normal to elevated ankle pressures due to calcified vessels. Ankle pressures in these patients cannot be determined because the vessels are incompressible. Doppler systolic pressures in these patients therefore will erroneously appear normal. The only way to evaluate PVD in such patients is by pulse volume recordings (PVR). PVR also are useful where it is difficult to obtain a pedal Doppler signal. The PVR is a quantitative segmental plethysmograph designed for high sensitivity and oriented toward clinical use. Plethysmography is defined as a measurement of volume change. When this measurement is combined with clinical findings, segmental and limb pressures, and treadmill exercise, firm hemodynamic data are obtained to aid in patient management.

Exercise testing Some patients who suffer from intermittent claudication may have a normal testing pressure index that on exercise will fall below one. It is therefore valuable to include the exercise test as part of the Doppler examination when indicated. A typical exercise test is performed by walking on a treadmill at a speed of 1.5 to 2.5 mph on a 10 percent gradient for three minutes or until forced to stop due to onset of claudication. Pressure measurements are then made in the legs at one-minute intervals. In normal patients the pressure does not fall. In mild to moderate disease, the pressure falls, and it may take three minutes or more for the pressures to return to the baseline.

Reactive hyperemia In patients where a treadmill test would not be indicated, this test may give as much information. With the patient in the supine position a blood pressure cuff above the knee is inflated to 20 mmHg above the systolic arterial pressure. After three minutes the cuff is rapidly deflated and the ankle systolic pressure is measured repeatedly until the ankle pressure returns to the preischemic value. A time of one minute or less is normal; an increased time suggests vascular stenosis.

Invasive Testing and Surgical Treatment

Arteriogram angiography must never be done simply as a test for PVD. It should be done as a preoperative procedure after consultation with a vascular surgeon. Indications are rest pain (or night pain) not due to neuropathy, ulcerations that are not healing despite vigorous care, early or incipient gangrene, and severe PVD confirmed by laboratory studies. The reason for great caution in doing this procedure is to avoid possible complications from administering the contrast material.

Vascular repair Large arteries may be treated by endarterectomy thus restoring blood volume to the extremity. Below the groin, inverted saphenous vein graft is the preferred material to use to bypass obstructing arterial lesions. Where vein material may not be available, Dacron and other materials may be used.

Catheter angioplasty A technique where an inflatable rigid balloon on a flexible catheter is inserted into an artery under radiographic control. The balloon is inflated, and obstructing plaques are split and disrupted along with the underlying media with increase in luminal diameter. Most obstructions have proved to be amenable to catheter angioplasty. Focal lesions and proximal lesions can be treated with greater success and facility than diffuse and distal lesions. Potential complications are dissection, rupture, traumatic occlusion, acceleration of the atherosclerotic process, and distal embolization of plaque debris. Long-term evaluation of this procedure is not yet available.

Peripheral Vascular Risk Factors

Lipids The frequency of hyperlipoproteinemia has been high on the list of risk factors in most clinical studies. Whether hypercholesterolemia or hypertriglyceridemia or both represent the greater risk factor has not been totally evaluated. The relationship between high levels of low density lipoprotein (LDL) cholesterol and atherogenesis is generally well accepted, while high levels of high density lipoprotein (HDL) cholesterol are believed to be helpful in slowing the process. Good control of the blood glucose tends to raise the level of HDL; thus, controlling the blood glucose consistently is a factor in prevention of atherosclerosis through its HDL effect.[6-8]

Hypertension Defined as blood pressure greater than $\geq$140/90 mmHg. Of the currently recognized risk factors for cardiovascular disease, hypertension and diabetes mellitus appear to be the best indicators in predicting cardiovascular problems. The level of blood pressure is governed by the cardiac output and the degree of peripheral vascular resistance. Cardiac output is affected by many factors including stroke volume, heart rate, myocardial contractility, blood volume, and degree of vascular tone. An increase in peripheral vascular resistance without change in blood volume or cardiac output will result in an increase in blood pressure. Systolic hypertension, so frequently observed in elderly diabetic patients, is etiologically related to an accelerated rate of atherosclerosis. Diastolic hypertension occurs when the peripheral vascular resistance is disproportionately elevated in relation to blood volume and cardiac output. Generally the systolic pressure is elevated proportionately, thus maintaining the pulse pressure near normal. The renin-angiotensin-aldosterone system and other hormone components also are factors in maintaining hypertension and electrolyte balance. Elevated serum insulin levels commonly found in insulin resistant obese diabetes may result in or contribute to hypertension.

Age and duration Of all the risk factors in PVD the most important are the age of the patient and the duration of the diabetes. It is uncommon to see significant PVD before the age of 50 years. Duration of the disease is probably more important than age. Severe calcification is twice as common in short-duration diabetes mellitus than in the nondiabetic popula-

tion and four times as common in those with long-duration diabetes.

Blood glucose The overall control of the blood glucose is one of the major risk factors always considered in the development of diabetic vascular disease. Good control is important in the prevention, stabilization, and possible improvement in the problem.[9]

Smoking Clinical experience strongly confirms that patients who smoke and have chronic occlusive arterial disease affecting the extremities do not do well. They have a decreased blood flow to the extremities and a decrease in the skin temperature of the digits. The effect of a single cigarette narrowing the arteries and reducing the blood flow may last as long as an hour. The mechanism by which smoking is atherogenic is unknown. Although some of the adverse cardiovascular effects of smoking are mediated by nicotine, the principal unfavorable consequence of smoking is probably an increased concentration of carboxyhemoglobin and resultant tissue hypoxia.

Physical activity The influence of physical fitness as an independent risk factor in the development of atherosclerosis has long been debated. The protective effect of exercise against atherosclerosis probably involves the reduction of other risk factors in physically active people, for example, hypertension, hyperlipidemia, and insulin insensitivity will benefit immensely from an exercise program if there are no medical contraindications for it. The beneficial effects of exercise are short lived, and chronic adaptation requires sustained physical conditioning.

Sex and sex hormones The relative freedom of nondiabetic premenopausal women to atherosclerosis is believed to be related to a protective effect of estrogen. The role of sex hormones in the pathogenesis of atherosclerosis needs more study.

Obesity Obesity is a minor risk factor in the development of PVD in both the diabetic and nondiabetic population. The underlying factors of hypertension and hyperlipidemia related to obesity are the more serious problems.

Stress and personality Type A personality individuals are chronically impatient, work-oriented, and preoccupied with deadlines; while the type B behavior pattern is characterized by the absence of pressing conflict with time or other persons and a more relaxed pace of activity. The type A personality is more prone to vascular atheromatosis. There is a need for early personality screening and appropriate therapy to help diabetic patients adapt to stress.

Genetic and racial factors Several types of familial disorders of hyperlipoproteinemia with increased propensity to atherosclerosis are inherited, either as monogenic mutant genes or in a more complex polymorphic transmission. Genetic factors in the inheritance of atherosclerosis are most likely determined by the sum of the genetic expressions of various underlying causative or protective mechanisms. Ethnic, dietary, and environmental factors unique to diabetic patients blur the evaluation of these factors.

Treatment

Prophylaxis Early recognition of the possibility of the development of PVD, understanding the problem, and managing the controllable risk factors are essential if complications are to be reduced. If a diabetic patient does not have a good understanding of meal planning, self-monitoring of blood glucose, and the management of diabetes, an intensive education course is essential. No one can control aging and duration of the diabetes. Atherosclerosis begins in the late teens or early twenties, and primary prevention begins with the earliest phase of atheroma formation.[10,11]

Patients with an impaired glucose tolerance or known diabetes should have annual assessments of lipid parameters, renal function (especially with microalbumin measurement) and fundoscopic status, vascular function (for example, with Doppler analyses), and neuropathic status, and perhaps biannual evaluations of the clotting system. Defects in coagulation and blood flow, platelet function, and prostaglandin interaction with platelets and vessel wall certainly have an effect on atherosclerosis. Several drugs such as aspirin, indomethacin, and sulfinpyrazone have had a recent popularity in retarding atherogenesis by inhibiting prostaglandin action.

Drug therapy A variety of medical treatments have been proposed, but none has proved to be of any significant or consistent value. The peripheral vasodilators have been ineffective because the problem is not one of vasospasticity but an anatomical narrowing of the vessels. Drugs that may increase peripheral ischemia should be avoided if at all possible. Dopamine, anticoagulants, and beta-blockers such as propranolol should be used cautiously in patients having PVD.

Sympathectomy This procedure is of no value unless a vasospastic component is discovered during the vascular evaluation.

Summary

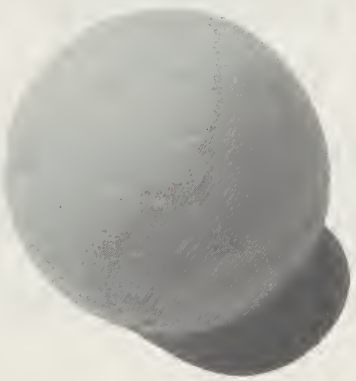
The risk for PVD in the diabetic patient represents a combination of factors, the most important being age and the duration of the diabetes, factors which cannot be controlled. While each treatable risk factor may have a low degree of importance in itself the combination of these factors may become very significant.

Every effort should be exerted to keep hypertension, hyperlipidemia, and blood glucose under excellent control. Smoking is absolutely contraindicated.

Finally, in caring for diabetes, we must broaden our focus beyond just treatment of hyperglycemia and begin to view diseases of the vascular system as critical sites for preventive efforts. Rather than wait for vascular complications to occur, it is better to anticipate them and prevent them from happening. Good management of diabetes will bring happiness in life and decreased expense and morbidity.

References

1. Ross R, Glomset JA. The pathogenesis of arteriosclerosis (Part 1). N Engl J Med 1976;295:369-75.
2. Ross R, Glomset JA. The pathogenesis of arteriosclerosis (Part 2). N Engl J Med 1976;295:420-25.
3. Ross R. The pathogenesis of atherosclerosis - An update. N Engl J Med 1986;314:488-99.
4. Vinicor F. Atherosclerosis in diabetes mellitus. Diabetes Spectrum 1988;1:319-23.
5. Treiman RL. Peripheral vascular disease in diabetic patients: Evaluation and treatment. Mt. Sinai J Med 1987;54:241-44.
6. Levin ME. Diabetic peripheral vascular disease. Cardiovasc Rev Rep 1983;4:1325-31.
7. Consensus statement: Role of cardiovascular risk factors in prevention and treatment of microvascular disease in diabetes. Diabetes Care 1989;12:573-79.
8. Grundy SM, Goodson DS, et al. The place of HDL in cholesterol management. Arch Intern Med 1989;149:505-10.
9. Rosenstock J, Friberg T, Raskin P. Effect of glycemic control on microvascular complications in patients with type I diabetes mellitus. Am J Med 1986;81:1012-17.
10. Unger RH. Meticulous control of diabetes: Benefits, risks, and precautions. Diabetes 1982;31:479-83.
11. Position statement: standards of medical care for patients with diabetes mellitus. Diabetes Care 1989;12:365-70. ■



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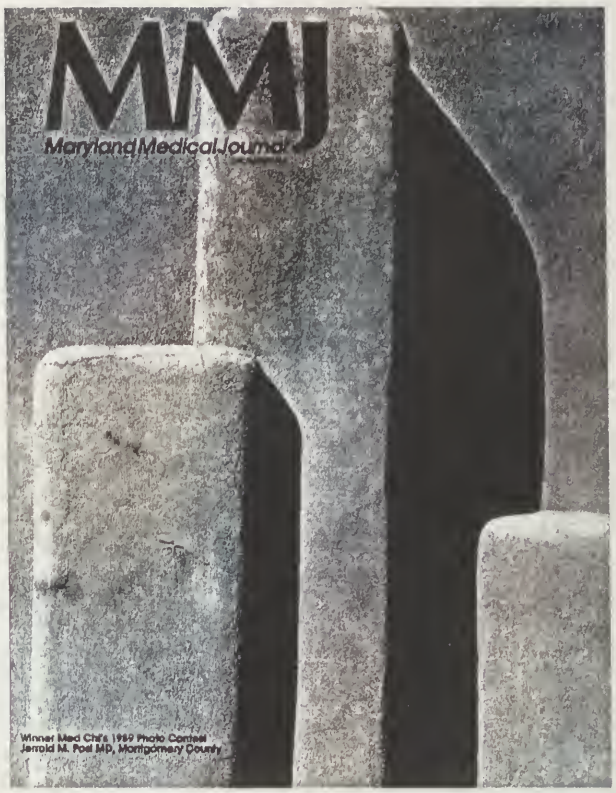
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Brain Injured Patients: Comorbidities and Ancillary Medical Requirements

John B. Parkerson, Jr., MD, MS; Zachary Taylor MD, MS; and James P. Flynn MD, MPH

Drs. Parkerson and Taylor were residents in the Department of Epidimiology and Preventive Medicine, University of Maryland School of Medicine. Dr Flynn is Acting Director of MIEMSS; Director/Chief Executive Officer, Montebello Rehabilitation Hospital; as well as with the Department of Epidimiology and Preventive Medicine, University of Maryland School of Medicine, Baltimore.

Traumatic brain injuries are medically and economically devastating conditions. Rehabilitation may be affected by premorbid factors such as substance abuse and violence. Successful rehabilitation is an ongoing process.

Death and disability due to head trauma are significant problems in the United States. It is estimated that there are 300 head injuries per 100,000 population each year in the United States.[1] Head injury may result in up to $12.5 billion in direct and indirect costs to society.[2]

Rehabilitation of head-injured patients is an integral part of their total management. Evaluation of the results of rehabilitation is hindered by not taking into account pretrauma factors associated with risk of head injury that impair recovery. Factors such as previous neurological disease, alcoholism, age, previous head injury, and prior significant psychiatric problems may lead to an overestimation of head-injury deficits.[3] Accurate prognosis in the rehabilitation of head-injured patients is therefore often difficult to predict because it is unknown how well the brain functioned before the injury. The relative success of rehabilitation may be related more to the pretrauma level of mental and psychological functioning than to the severity of the injury.[4]

Pretrauma factors found to be related to injury are age, alcohol intoxication, experience, and judgment.[5] The abuse of alcohol and impaired judgment may indicate psychosocial dysfunction, which may have an effect on the course of rehabilitation. For instance, Lyons *et al.*, in a study of 321 head- and spinal-cord injured patients found that 13.1 percent required psychiatric consults and that those patients with psychiatric consults had longer lengths of stay.[6]

Montebello Rehabilitation Hospital, a 183 bed comprehensive rehabilitation hospital, is part of the University of Maryland Medical System. This study examined characteristics of brain-injured patients referred to MRH to determine premorbid demographic characteristics, types of complications, and the consultations they required. Other goals were to provide a basis for utilization planning and to suggest preventive strategies.

Methods

A survey was conducted as a chart review in Spring 1988. A standard form was developed that included demographic data (age, sex, race, education, marital status, address), length of stay, discharge diagnoses, pulmonary/bladder/bowel function on admission and discharge, medications on admission and discharge, types and numbers of complications, and types and numbers of consultations. Abstraction involved review of the admission face sheet, admission team evaluation, social worker evaluations, progress notes written by physicians, nurses, and therapists, consultations, and the discharge summary. A patient was considered to have a consult if there was a completed consult form in the chart. Records were coded by the hospital chart number and did not include any personal identifiers.

The study population consisted of all patients who were discharged from the MRH Head Trauma Unit during calendar year 1986. These patients were retrieved from a master list of all discharges by service. There were 89 cases included.

Abstracted data was coded and entered into a dBASE III[7] computer file that was then translated into a SAS[8] database. The SAS statistical package was used to calculate frequencies of the variables of interest.

Findings

Demographics The average age of the patients on the head trauma unit was 33 years. Of the 89 patients, the majority were white (62.2 percent) and male (85.6 percent) (Table.). Most had less than a high school education (52.2 percent). Approximately 20 percent of the patients were married or had been married while most (54.4 percent) were single. The insurance coverage of the patient population ranged from state medical insurance, with 56.2 percent either on medical assistance or with an active application, to some form of private insurance coverage (42.2 percent).

Premorbid Factors Significant numbers of these patients had a history of alcohol abuse or illicit drug use prior to their injury. More than half of the patients (53.8 percent) had a history of alcohol abuse. Marijuana had been used by 20 percent, 10 percent admitted to IV drug use, 12.2 percent had used cocaine, 2.2 percent had used inhalants, and 13.3 percent admitted to using other drugs (Figure 1). In addition to current drug use, a history of a previous head injury was reported in 22.2 percent of the patients. Twenty-five patients (28.1 percent) also had a history of a previous neurological dysfunction.

The social worker's initial evaluation found that a large majority of the patients did have some form of family support (77.5 percent). Almost half the sample (48.9 percent) also had evidence of nonfamily support documented in the social worker's evaluation. Thirty-three patients (36.7 percent) were unemployed at the time of their accident, forty-three (47.8 percent) were employed, and six (6.7 percent) were disabled. The remainder of the patients were students, retired, or the data were missing.

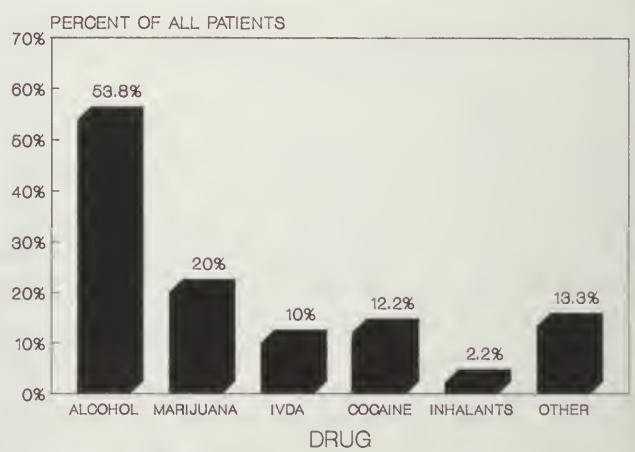
The cause of injury varied among the patients, with the largest number resulting from motor vehicle accidents (42.2 percent) (Figure 2). An additional 16 (17.8 percent) resulted from blunt trauma, 12 (13.3 percent) from motorcycle accidents, 10 (11.1 percent) from falls, 9 (10 percent) from gunshot wounds, and the remainder from miscellaneous causes. Sixteen (17.8 percent) of the patients were using drugs at the time of their injury, and 34 (37.8 percent) were using alcohol. Fifteen of the patients (16.7 percent) were victims of crimes, with seven (7.8 percent) injured as a result of domestic violence. Five patients (5.6 percent) were injured in suicide attempts. Only one patient was the passenger in a car involved in a motor vehicle accident, but ten (11.1 percent) were pedestrians.

Acute Hospitalization The majority of patients were admitted from MIEMSS (70.8 percent) and other Baltimore City hospitals (18 percent). Five patients were admitted from other Maryland hospitals and three from out of state. Data concerning date of acute hospitalization were missing on two patients. The average length of stay in the acute hospital was 36 days.

Montebello Hospitalization The admission team evaluation of each patient commonly included an estimated length of stay of 4 to 6 weeks. The actual length

Table. Demographic Data

Factor		Frequency	Percent
Race			
	White	56	62.2
	Black	33	36.7
	Other	1	1.1
Gender			
	Male	77	85.6
	Female	13	14.4
Education			
	Less than H.S.	18	20.0
	High School	29	32.2
	Completed H.S.	33	36.7
	More than H.S.	10	11.0



Some patients used multiple drugs

Figure 1. Pre-Morbid Drug Use

of stay (tabulated retrospectively on discharge) averaged 47 days.

On admission to Montebello, twelve patients required a tracheostomy. At the time of discharge, seven continued to have a tracheostomy. Bladder management on admission involved an external catheter in twelve patients, an ostomy in three patients and an indwelling catheter in one patient. Nine patients were reported to be incontinent of urine in the nursing admission notes. On discharge, two patients had indwelling catheters, two patients were reported to be incontinent, and three patients continued to have external catheters. Fourteen patients were incontinent of feces on admission to the hospital, but only two remained incontinent at the time of discharge. The change in bowel and bladder function was statistically significant ($p < 0.05$) (Figure 3).

Thirty-four patients (37.8 percent) developed a complication during their MRH admission. Infections were the most common complication with urinary tract infections accounting for 13.3 percent of all complications. Wound and skin infections and pneumonia were responsible for 7.7 percent and 4.4 percent of all complications, respectively.

Consultations Almost all the patients (N = 88) received a consultation during their hospitalization. Neuropsychiatric (70 percent), dental (65.6 percent), and podiatric (14.4 percent) consultations are performed as routine services on most brain-injured patients. Additionally, most patients will be treated by physical, occupational, and/or speech therapy. Thirty-six patients (40 percent) required an orthopedic consult, 29 (32.2 percent) required a psychiatric consult, and 26 (28.9 percent) required an ophthalmology consult. Consultations also were requested from otolaryngology, internal medicine, general surgery, urology, and neurosurgery physicians.

Status at Discharge Eighty patients returned to the community upon discharge from the MRH. Forty required an appliance, most frequently a wheelchair (15 patients). Forty three patients were referred to outpatient services (physical/occupational/speech therapy and/or home care agencies). The number of patients requiring medications did not change substantially from admission to discharge.

Discussion

Patients who are admitted at Montebello Rehabilitation Hospital after lengthy acute care hospitalizations exhibit a wide range of physical and cognitive dysfunctions. This is particularly evident when the numbers and types of consultations needed by the patients are examined. Patients are able to come to Montebello and begin therapy before they have completely recovered from their acute injuries because of the availability of consultants in surgical and medical specialties.

The study emphasizes that many brain-injured patients may have prior cognitive and psychiatric disabilities that affect their rehabilitation. Most patients had not completed a high school education. It is not surprising that many of them have significant histories of drug and alcohol abuse, as these substances played a part in many of the accidents resulting in their head trauma. This study did not have the appropriate denominator data to determine whether the percentage of patients with substance abuse may reflect use in the general population. However, these patients not only need therapy for their injuries but also may require intensive behavioral and cognitive therapy to begin a healthier life. The need for behavioral therapy and psychiatric care does not end when they are discharged from the hospital. Successful rehabilitation is an ongoing process.

The average patient underwent over six weeks of intensive rehabilitation. Although most of the patients had some form of support from family or friends, they could not have been discharged to home or the community from the acute care hospital. The stay at MRH enables most patients to recuperate to a point where this was possible.

Primary prevention may result in fewer head injuries. Programs that prevent and treat substance abuse, stricter "driving-under-the-influence" laws, and

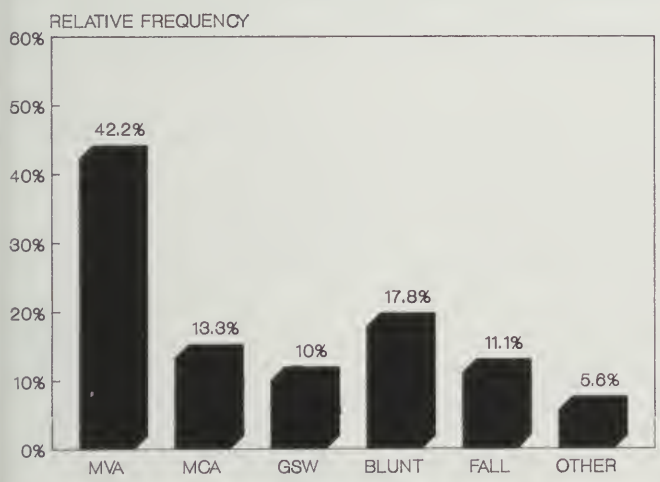
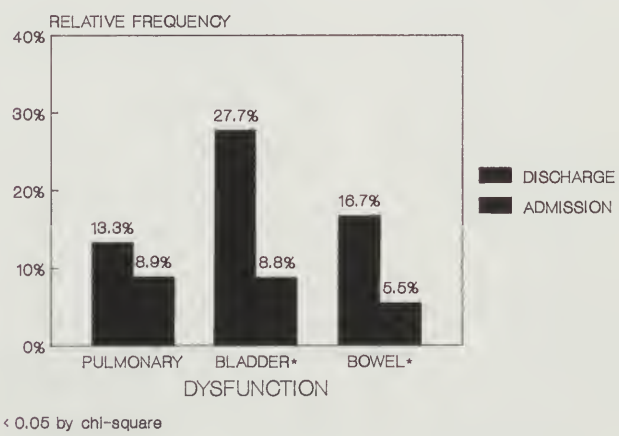


Figure 2. Cause of Injury



*P < 0.05 by chi-square

Figure 3. Change in Medical Status During Rehabilitation

stricter enforcement of present laws may result in fewer brain-injured patients. The large number of motor vehicle and motorcycle accidents indicates a need for prevention of accidents and injuries through driver education, enforcement of seat belt laws, and enactment of helmet laws. The number of injuries that resulted from interpersonal violence, particularly domestic violence, was disturbing. Efforts to curb spousal abuse and to reduce the level of violence in our society also could have an impact on the number and severity of head injury patients.

Conclusion

Behavioral and lifestyle factors may have led to the brain injuries sustained by patients in the Montebello Rehabilitation Hospital Head Trauma unit. These same factors make rehabilitation outcome somewhat less predictable. A significant number of brain-injured patients undergoing rehabilitation suffered complications requiring subspecialty care from many other fields in addition to the rehabilitation specialist.

References

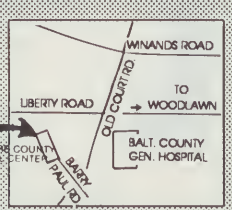
1. Annegers JH, Jurland LT. The epidemiology of central nervous system trauma. In Odom El, ed. Central Nervous System Trauma Research Status Report. Washington, DC: National Institutes of Health, 1979.
2. Grabow JD, Offord KP, Reider ME. The cost of head trauma in Olmsted County, Minnesota 1970-1974. Am J Public Health 1984;74(7):710-12.
3. McLean A, Dikman S, Temkin N et al. Psychosocial functioning at 1 month after head injury. Neurosurgery 1984;14(4):393-99.
4. Gogstead AC, Kjellman AM. Rehabilitation prognosis related to clinical and social factors in brain injured of different etiology. Soc Sci Med 1976;10:283-88.
5. Haddon W. The changing approach to epidemiology, prevention, and amelioration of trauma: The transition to approaches etiologically rather than descriptively based. Am J Public Health 1968;58:1431-38.
6. Lyons JS, Larson DB, Burns BJ et al. Psychiatric co-morbidities and patients with head and spinal cord trauma: Effects on acute hospital care. Gen Hosp Psychiatry 1988;10:292-97.
7. dBase III. Ashton-Tate Corporation 1988.
8. SAS Institute Inc., Cary, NC, USA.

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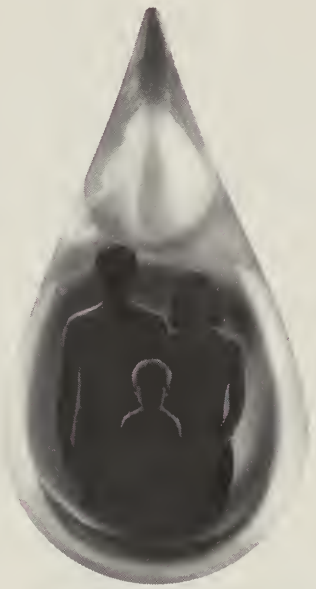
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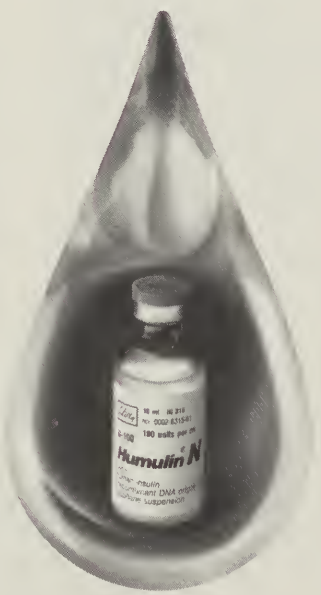
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Pneumothorax: An Unusual Manifestation of a Bronchial Carcinoid

Robert B. Wagner MD and Gaylord S. Knox MD

From the Departments of Surgery (RBW) and Radiology (GSK), Greater Laurel-Beltsville Hospital, Laurel, MD. Dr. Wagner is Clinical Associate Professor, Uniformed Services University of Health Science, Bethesda.

Although pulmonary hyperinflation is a recognized manifestation of endobronchial tumors, extreme hyperinflation culminating in pneumothorax is extremely rare. We report a case of an endobronchial carcinoid tumor that acted as a check valve presenting as a pneumothorax in an elderly woman. The obstruction was relieved by resecting the tumor utilizing the flexible fiberoptic bronchoscope.

Long-term successes in treating carcinoid tumors suggest that in poor-risk patients endobronchial resection, when possible, be considered the treatment of choice.

Case Report

A frail, obese 68-year-old woman presented to Greater Laurel-Beltsville Hospital with a one-day history of severe shortness of breath. Breath sounds were diminished on the left, and a chest film confirmed a moderate pneumothorax (Figure 1). Ten days prior to admission, the patient had complained of chest pain and moderate shortness of breath. A chest film taken at that time was interpreted as showing an infiltrative process in the left upper lobe.

Two years prior to this admission she underwent a cholecystectomy at another hospital. The postoperative course was complicated by pulmonary insufficiency, atelectasis, and acute renal failure. During that hospitalization a therapeutic bronchoscopy was performed to relieve "secretions." No endobronchial tumor was noted.

Following the present admission a closed thoracostomy was performed to relieve the pneumothorax. It was partially evacuated, but a posterior loculation of air remained (Figure 2). Because of the incomplete re-expansion of the lung, flexible fiberoptic bronchoscopy was performed. At bronchoscopy, which was performed under topical anesthesia, a large, smooth, pedunculated tumor was seen just opposite the orifice of the left upper lobe bronchus (Figure 3 A). With inspiration the bronchus enlarged slightly, allowing air to enter, however, at expiration the tumor completely occluded the bronchus. The tumor was biopsied revealing benign bronchial epithelium. Because the patient be-

came quite dyspneic and cyanotic during the procedure, it was terminated after the first biopsy.

Three days later, under general anesthesia, using the flexible fiberoptic bronchoscope, the tumor was again visualized and almost completely resected. Moderate (20 mls) bleeding was encountered. The histology was that of a bronchial adenoma, carcinoid type with typical features. The pneumothorax improved, but some posterior loculation remained. A week later the patient was re-bronchoscoped revealing that 85 percent of the tumor had been removed. The posterior loculated pneumothorax was aspirated, and she was discharged several days later.

The patient remained well and was re-bronchoscoped five months later. No evidence of endobronchial tumor enlargement (Figure 3 B) could be seen. The base of the tumor was rebiopsied and trimmed. Since the bronchus had remained at least 85 percent patent, no further surgery other than follow-up bronchoscopy was planned. The patient died of a cerebrovascular accident a year and a half after the endobronchial resection. Autopsy was not obtained.

Discussion

Unilateral pulmonary hyperinflation has long been recognized to be a manifestation of incomplete bronchial obstruction, be it foreign body or tumor.[1] Extreme hyperinflation resulting in subpleural alveolar rupture and pneumothorax is an unusual but logical sequella. To our knowledge, this is the first reported case of this phenomenon subsequent to a carcinoid tumor.

Chevalier Jackson, in writings that date back to



Figure 1. PA chest demonstrates a left pneumothorax (arrowheads). In addition a soft tissue mass measuring 12 mm in diameter is seen (arrow) in the left main bronchus.

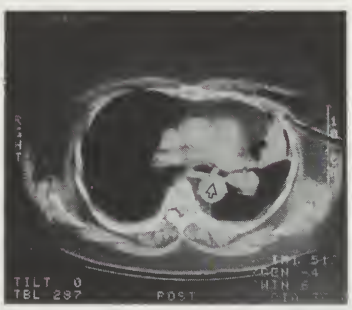


Figure 2. Computed tomography of the chest two days after admission. Axial CT section through a level just below the tracheal bifurcation demonstrates a discrete, well defined mass (arrow) in the left main bronchus. A chest tube has been inserted into the left hemithorax. Collapse of the lingula is seen.



Figure 3A. Bronchoscopic view of the polypoid tumor completely occluding the left main bronchus.



Figure 3B. Bronchoscopic view of the distal left main bronchus five months after bronchoscopic resection. Minimal residual tumor (arrow) is seen.

1917[2,3] thoroughly explained the mechanism of the pulmonary hyperinflation caused by the check-valve action of the flapping motion of a pedunculated endobronchial tumor. He attributed the hyperinflation (he used the term emphysema) to imperfect seating of the flapping tumor allowing air to get below it during inspiration and a reverse check-valve action during expiration producing hyperinflation. In his last book (1950),[3] he emphasized why this mechanism is properly termed a check valve (as opposed to a ball valve).

There is general agreement in the literature that complete resection of carcinoid tumors, with conservation of pulmonary parenchyma, is the treatment of choice for the typical carcinoid.[4] However, as in all of medicine, patients must be individualized. In our case the patient would not have tolerated a major intrathoracic procedure. Therefore, endobronchial resection, utilizing the flexible fiberoptic bronchoscope,[5] was performed. The clinical result was excellent. Endobronchial resection of carcinoid tumors almost identical to ours were reported by Jackson[2] with a 35-year follow-up reported in his 1950 monograph[3] and by Lawson[6] with a 15-year successful follow-up. Jackson's case, as did ours, radiographically alternated between atelectasis and hyperinflation, but his case did not progress to pneumothorax. These long-term successes are encouraging and suggest that in poor-risk patients (such as ours) endobronchial resection, when possible, be considered the treatment of choice.

References

1. Fraser RG, Pare JAP. Diagnosis of Diseases of the Chest. 2d ed, Vol 1. Philadelphia: WB Saunders Co, 1977, 547-48.
2. Jackson C. Endothelioma of the right bronchus removed by peroral bronchoscopy. Am J Med Sci 1917;153:371-75.
3. Jackson C, Jackson CL. Bronchoesophagology. Philadelphia: WB Saunders Co, 1950, 188-207.
4. Wilkens EW, Grillo HC, Moncure AC et al. Changing times in surgical management of bronchopulmonary carcinoid tumor. Ann Thorac Surg 1984;38:339-43.
5. Mehta AC, Livingston DR. Biopsy excision through a fiberoptic bronchoscope in the palliative management of airway obstruction. Chest 1987;91:774-75.
6. Lawson RM, Ramanathan L, Hurley G et al. Bronchial adenoma: review of an 18-year experience at the Brompton Hospital. Thorax 1976;31:245-53.

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Epidemiologic Classics

Theodore E. Woodward MD, MACP

Dr. Woodward is Professor of Medicine Emeritus, University of Maryland School of Medicine. This material originally was presented as a talk to the Preventive Medicine officers at the Walter Reed Army Institute for Medical Research, Bethesda.

Epidemiology is the study of the relationships of the various factors determining the frequency and distribution of disease in a human community; the field of medicine concerned with the determination of the specific causes of localized outbreaks such as hepatitis, ..., or any other disease of recognized etiology.

Dorland's Medical Dictionary

Epidemics are natural phenomena concerning human communities. We cannot repeat them at will in order to study the mechanism of their occurrence. We must treat them as experiments conducted by nature for us to observe and interpret. (Poster display, All India Institute, Calcutta)

Yellow Fever

One of the best examples of this concept is that of Henry Rose Carter's contribution in helping unravel the evidence that the domestic mosquito, *Aedes aegypti*, was the vector of yellow fever. Although the yellow fever story and the contribution of the Reed Commission has been retold many times, the work of Carter, perhaps one of the most astute of all epidemiologists in providing key evidence, is unheralded and virtually unknown.

Carter graduated from the University of Virginia planning to be an engineer. A badly fractured leg directed him to study medicine. In 1878, along with his classmate William Councilman, he graduated in medicine from the University of Maryland School of Medicine. (Councilman made his mark in many fields, including a major finding in the pathologic changes in yellow fever.) Carter entered the Public Health Service and was assigned to Louisiana as Quarantine Officer for several off-shore Gulf Islands. Yellow fever was rampant there, and his tour of duty extended from 1879 to 1898, broken for only short periods when his services were required elsewhere. The accepted concept to explain the transmission of Yellow Jack was the fomites theory that the agent was spread to humans through the air from contaminated clothes, personal effects, or other objects.

Carter questioned this widely held explanation and began his careful epidemiologic sleuthing. Ships coming to the gulf ports originated in such notorious yellow fever havens as Rio, Santiago, Havana, and Vera Cruz. Ships' captains and others told Carter of a rather uniform pattern of illness among their crews. Soon after leaving port in Central or South America, cases of yellow fever



Henry Rose Carter, Graduate, University of Maryland School

occurred. In cruises of less than two weeks, there was no second clustering of yellow fever cases. Carter noted this strange event repeatedly. He carefully questioned customs and baggage inspectors and found not one instance of yellow fever in those who handled clothes and personal items. Moreover, a retrospective study of the quarantine and customs records for the previous 100 years revealed no cases acquired through this type of contact.

Following his recovery from yellow fever in 1897, Carter was called to Orwood and Taylor (two small towns in upper Mississippi) where he solved the mystery posed by the shipboard outbreaks reported at the Gulf Islands. Carter was assisted in this work by Harry Gant in conducting meticulous observations. After visiting a few yellow fever patients Carter was impressed that the conditions were ideal to study what he called house infection, that is, the time at which people in the house would be taken sick after the introduction of the first case in that house. He noted that the people were reliable and that truthful statements could be expected. Since the communities were remote from a railroad, commercial interests were not involved. They kept daily and hourly records (even to the minute) of the first case in a house, the interval until the next case, and so on. Carter documented the fact that direct personal exposure to the immediate physical surroundings of an index case was not required for people to become infected secondarily. A place itself could not transmit yellow fever. A before-after change in infectivity of a patient's environment observations (such as the following) nailed down Carter's case for an *extrinsic incubation period*.

> * Mr. SWG of Orwood was stricken on August 1, remaining in the household for the duration of his illness. Among eight people visiting him between 6 August and 16 August, there were no cases of yellow fever; among 34 visiting him thereafter, there were 33 cases.
> * Dr. W. became sick with yellow fever on 27 August, succumbing on 1 September. His family of ten were away, not daring to return home until 24 September, whereupon all developed yellow fever within two to three days.

Dr. Carter's words, "The fact that yellow fever is not directly transferable through an environment infected by the patient is due to the fact that the material leaving the patient must undergo some change in the environment before it is capable of infecting another man." He made an analogy to the drying of tuberculous sputum before producing infection of other people or to the tick transmission of Texas Cattle Fever as shown by Theobald Smith. He called this the period of "extrinsic incubation."[1-3]

Carter was transferred to Havana in 1899 to reorganize its quarantine service since yellow fever was rampant. He kept in close touch with Walter Reed and J.W. Lazear through letters and discussions. They were familiar with his Mississippi work from reprints Carter had transmitted. Reed took the cue from Carter's extrinsic incubation findings and suggested that Lazear[2] hold the infected mosquitoes sufficiently long after initial feeding for the causative agent to mature and cause illness when fed on volunteers. Sternberg[2] gave Reed the credit for the idea to incubate the mosquito after its initial feeding.

Although the Reed Commission's success in proving the mosquito (*A. aegypti*) theory originated by Carlos Finlay, Reed communicated directly to Carter on February 26, 1902,

> You, Carter, must not forget that your work in Mississippi did more to impress me with the importance of an intermediate host than everything else put together.

Carter's observations were of immeasurable significance. Once the specific mosquito was identified and its breeding habits clarified, its control was achievable.

The Typhus Fevers

It was Renee Dubos who said

> the epidemiologist has to deal with biological phenomena in all their natural complexity. He must try to recognize the relationships most common in certain ecological situations and to derive from this knowledge the methods of control having the best statistical chance of being useful in each particular situation. . . . the experimenter determines by choice the phenomena that he studies.[4]

These epidemiologic principles are best displayed by a series of fundamental biologic and clinical observations by Nicolle, Brill, Maxcy, and Zinsser.[5-8] Their collective undertakings clarified the ecology, mechanisms of infection, and underlying principles that were necessary to insure control of the rickettsioses, particularly the typhus fevers.

In the wake of Ricketts' incrimination of the tick as vector of Rocky Mountain spotted fever, Charles Nicolle in 1909 identified the human body louse as the vehicle for transmission of epidemic typhus rickettsia. Even though the means of spread of typhus were clarified, the techniques for effective louse control were delayed until 1942 with the advent of DDT.[5]

Meanwhile, Nathan Brill, a New York physician who had taken clinical training in France, began his classic observations. From 1898 to 1910 he studied a large number of febrile patients thought by his contemporaries to have typhoid fever. Brill's bedside ob-

servations coupled with negative findings for blood cultures and Widal reactions convinced him the disorder he reported in 221 patients was neither typhoid nor classic typhus as he had observed during the European experience. Brill stated,

> Inasmuch as these cases have been considered by almost all my colleagues in New York, in the past, as typhoid fever cases, it will be necessary to show the marks of differentiation.
>
> Clinically, this disease resembles typhus fever more than it does any other disease, and I would have felt that I had offered nothing to our nosology if it had been proved that typhus fever had lost its virulence, that it was constantly present in a community, that it was not communicable, that when it was present, epidemics of it did not occur, and that it was no longer a grave and fatal disease. But with typhus fever, as the great masters of medicine have taught, such a conception would be unjustifiable. Therefore, I believe this disease not to be typhus fever.
>
> I should emphatically deprecate calling the disease pseudo-typhoid fever because the affection has nothing in common with typhoid, paratyphoid and typhoid-colon or intermediate group infections. I prefer to speak of it as an acute infectious disease of unknown origin.[6]

From the time of Brill's report, a sporadic typhuslike illness was designated throughout the world and particularly in the southeastern United States as endemic typhus to distinguish it from the more serious classic louse typhus. In the United States, this sporadic illness was called either endemic typhus or (erroneously) Brill's disease. In 1912, Anderson and Goldberger linked Brill's disease with Mexican typhus through studies of the agent in laboratory animals, including cross-immunity tests. Endemic typhus was generally mild to moderate in severity and nonfatal, which distinguished it from classic, severe, louse-borne typhus.

Kenneth Maxcy, an epidemiologist with clinical experience, helped clarify matters by studying cases of endemic typhus in the south and proposed that its agent reservoir was rodents and that an arthropod was its probable vector. After he observed that persons who usually contracted endemic typhus, lived in proximity to granaries, warehouses, and food depots, he concluded in 1926 that "obviously, the rodents upon which suspicion immediately falls are rats and mice, and the parasitic intermediaries which are first suspected are fleas, mites, or possibly ticks."[7]

This unique epidemiologic prediction was confirmed in 1930 by Dyer and associates who trapped rats in Baltimore in the locale of typhus patients. Fleas taken from these rodents and emulsions of rat brains when injected into guinea pigs yielded causative rickettsia. The murine reservoir and flea transmission of a rickettsial agent was established; the clinical illness was noted to be similar to epidemic typhus, milder in its course, and usually nonfatal except in older persons. Epidemic typhus generally was associated with a severe and fatal illness. Rat proofing and rodent control were responsible for a sharp diminution in incidence of murine typhus.

Case records and serum specimens of the index case in Baltimore were transmitted to the National Institutes of Health in Washington by Dr. Louis A.M. Krause. Dr. Krause and Dr. Maurice C. Pincoffs, who examined the patient in consultation, considered typhoid fever as the initial diagnosis but recognized it as endemic typhus when a low titer of Proteus OX19 agglutinins developed.

Two additional patients developed typhus. Rat and fleas taken from the basement of the store where typhus was contracted yielded the causative rickettsia.

> In connection with our epidemiological investigations of cases of typhus, it was found that several cases of endemic typhus had occurred on premises in the immediate vicinity of food handling establishments in Baltimore in the late summer and fall of 1930. On these premises evidence of heavy infestation with rats was observed. Rats were trapped at this place and combed for fleas. A rat nest was also found. Approximately three dozen fleas were secured from the rats and the nest on November 20, 1930.[9]

There was no acknowledgment of the clinical contribution in the publication which recorded the findings.

It was not until the mid-1930s when Zinsser and his associates in Boston and New York further evaluated patients with the Brill-type disease.[8] It was apparent the clinical manifestations were milder than those of the classic type. Several strains of rickettsiae were isolated in guinea pigs with blood from such patients, and in animals, the disease simulated the manifestations of epidemic typhus, including the characteristic histologic findings of vasculitis. Moreover, such convalescent animals were immune to epidemic or murine typhus rickettsial challenge.

An odd finding in patients with Brill's disease was the low or negative titer to Proteus OX19 antigens. It was noted epidemiologically that most patients (95 percent) with Brill's disease gave a history of having contracted classic typhus in countries in Europe in earlier life. Zinsser reasoned correctly that Brill's disease was simply a later recurrence of their illness, milder but nevertheless recurrent epidemic typhus fever. This illness is now called Brill-Zinsser Disease.

A littler later, Murray *et al.* placed lice on patients with Brill's disease and were readily able to isolate the causative rickettsia.[10]

Soon to follow were the findings in Kuala Lumpur, the Walter Reed Army Institute for Research, and Baltimore that patients convalescing from scrub typhus, epidemic typhus, and Rocky



Kenneth F. Maxcy MD, Professor of Epidemiology, The Johns Hopkins University

Mountain spotted fever harbored viable pathogenic rickettsia.[11-13] Isolates of virulent rickettsia were made from resected lymph glands from one to ten years or more after convalescence from the acute attack. These findings simply confirmed the wisdom of Zinsser. Up until this time, it was presumed epidemic typhus rickettsia had no animal reservoir and the ecological cycle was simply man-louse-man, with man serving as the source.

Zinsser's quote at the end of his classic treatise *Rats, Lice and History* is most appropriate at this point. He said,

> Typhus is not dead. It will live on for centuries, and it will continue to break open whenever human stupidity and brutality give it a chance, as most likely they occasionally will. But its freedom of action is being restricted, and more and more it will be confined, like other savage creatures, in the zoological gardens of controlled diseases.[14]

Zinsser was remarkably prophetic, and he never fully believed that man was the sole reservoir of *Rickettsia prowazeki*. In 1975, epidemic typhus rickettsia was isolated from six flying squirrels in Florida and from four in Virginia. Sonenshine and associates[15] identified a widespread natural infection of *R. prowazeki* (the causative agent of epidemic typhus) in the flying squirrel, and the ectoparasites of the squirrel lice and fleas were infected. This strongly suggested that flying squirrel lice and fleas were possible natural vectors. McDade and associates,[16] from 1972 to 1982, identified by serologic techniques the presence of 22 human infections of *R. prowazeki* in the United States; most of the illnesses were identified with contact with flying squirrels. Findings of epidemic typhus in such squirrels and their ectoparasites and antibodies to *R. prowazeki* in squirrels has raised important health questions: the validity of man as the sole reservoir of epidemic typhus is highly suspect.

Mechanisms of Infection and Means of Control

Three classic epidemiologic observations clarified mechanisms of infection and their means of control. Recall that David Bruce first identified *Micrococcus melitensis* on the island of Malta in 1886, *Brucella abortus* was discovered by Bang in 1896, and *Brucella suis* by Jacob Traum in 1914. For a number of years, these three organisms were thought to be separate entities as were the diseases they caused.

In 1918 Alice Evans of the Dairy Division of the Bureau of Animal Husbandry reported that from 192 samples of fresh milk (one herd was from Washington, DC and two herds from Chicago) 45 (23.4 percent) yielded organisms related to *B. abortus* (five dairies were represented). Her second report showed that milk from 17 of 23 cows (73.9 percent) contained *B. abortus*. Also in 1918, she reported the close relationship of *B. abortus* and *M. melitensis* and correctly identified *M. melitensis* as a bacillus and suggested that it be designated as *B. melitensis*. In her discussion, Evans questioned whether human disease might arise from drinking cow's milk contaminated with *B. abortus*. (This remarkable prophecy was fulfilled later.) Likewise, she concluded that the agglutination test performed on human sera could not distinguish infection due to *B. melitensis* or *B. abortus*.[17] Soon, Meyer and Shaw confirmed Evans' work and suggested the genus *Brucella* rather than *Bacteriaceae*.

In 1904 Craig, reporting cases of Malta fever in the US Army, included a nurse who never had been outside the United States.[18] Keefer, while a house officer at Hopkins, reported a case in a laboratory worker with typical undulating fever. Initially thought to be *B. abortus*, the organism was identified ultimately as *B. suis*.[19]



Samuel T. Darling, Graduate, College of Physicians and Surgeons, Baltimore, 1903 (reprinted from Samuel Taylor Darling, G. L. Baum. Library of Congress, Registration no. A-348101,

Samuel Darling was first to report the presence of a microorganism in the tissues of three fatal cases in Panama whose clinical illness resembled disseminated tuberculosis. To him, the organisms demonstrated on smears of tissues resembled *Plasmodia* in histiocytes (macrophages), which prompted him to name the organism *Histoplasma capsulatum*.[20] Ronald Ross, who had seen the malaria parasite in anophelene mosquitoes, visited Panama. On examining the microorganisms visualized by Darling, he remarked that they resembled the protozoans described earlier by Leishman and Donovan[21] in India as the cause of kala azar. Perhaps Darling was swayed in part by the obvious morphologic similarity. For about three decades, this disease was thought to be caused by a protozoa. Henry Meceney[21] was familiar with Darling's work on histoplasmosis in Panama and showed tissue sections containing *H. capsulatum* to Dr. Edna Tompkins,[21] who was studying supravital staining of blood cells at Vanderbilt University at Nashville. Dr. Tompkins and Dr. Katherine Dodd[21] noted Darling's organisms in films of a blood smear of a child suffering from an unusual anemia. Dr. William de Monbreun,[22] familiar with the case, then applied careful mycologic studies in 1933, which identified *H. capsulatum* as a fungus.

During the fourth decade of the twentieth century, many persons were found to have small calcific pulmonary lesions and negative tuberculin tests. Earlier, this strange circumstance had been shown by Charles

Smith and others on the west coast to be a form of coccidiomycosis. A remarkable and key observation was made by Emmonds of the Public Health Services.[22] In his classic publication in 1949, the following dramatic statement was made. "The first isolation of *Histoplasma capsulatum* was made from a mound of soil, at the top of a rat burrow underneath a chicken house." Immediately after this significant finding, the cause became clear to everyone who had noted patients whose illness was contracted from bat caves, belfry towers, chicken houses, and cellars, that subsequently *H. capsulatum* was isolated from soil samples taken from these sites. This is another example of the effective link between epidemiologic observation and biologic confirmation.[21]

Darlings's contributions broadened the field of epidemiology in many ways. Although he did not originate the concept that splenomegaly is an accurate index of the prevalence of malaria in an endemic area, he popularized this simple clinical finding as an accurate indicator, comparable to the blood smear.

In the 1880s, Louis Pasteur and Robert Koch led the golden era of microbiology. Koch wrote the Bible on tuberculosis, and his 1882 paper on the subject is a classic in the history of medical writing.[23] Yet there were several gaps in his findings and interpretations that he was doggedly reluctant to admit. One was his belief that tuberculin was therapeutically effective, yet he withheld from the world the nature of his therapeutic discovery for a considerable period. The tuberculin that he claimed to be therapeutically effective proved to be an extremely valuable public health indicator of infection.

An American physician turned veterinarian, Theobald Smith, contributed importantly to the entire field of microbiology. In 1898, based on his epidemiologic and laboratory findings, Smith insisted that the bovine strain of *Mycobacterium tuberculosis* was different from the human strain.[24] Koch insisted that only the human strain was pathogenic for humans. Smith proved his point (to Koch's displeasure), and it is to be recalled there was a great deal of scrofula and other types of bovine tuberculosis in the United States. These interpretations of Smith led to the means of identification of positive reactors in cows and elimination of this source of infection by sending them to the *abbatoir*. Europeans finally realized the significance of this principle only many years later, which accounted for the continuation of bovine-induced tuberculosis in such major countries as France, Spain, England, and Germany.

The impact on and contributions of epidemiology to medical practice are not limited to the infectious diseases but generously favor all disciplines of medicine. Observation of the patterns of illness and simple measurements in large populations, particularly in underdeveloped countries, have established basic principles of immense value. Simply consider the significance of the finding of a low level of serum albumin or iron (hemoglobin) in persons in less-privileged countries and its importance on the fields of nutrition and/or parasitology. Bailey K. Ashford's effective application of this principle in Puerto Rico culminated in abatement of hookworm infestation.[25]

References

1. Carter HR. Note on interval between infecting and secondary cases of yellow fever from records at Orwood and Taylor, Miss. in 1898. New Orleans M S J 1899;52:617-36.
2. Kelly HA. Walter Reed and Yellow Fever. McClure Phillips and Co., 1906.
3. Richter E D. Henry R. Carter, An overlooked epidemiologist. N Engl J Med 1967;277:734-38.
4. Dubos R. Mirage of Health. 1959, 201.
5. Nicolle C, Compte C, Conseil E. Transmission Experimentale du Typhus Exanthematique Par le Pou du Corps. R Acad Sci 1909;149:386-89.
6. Brill N. An acute infectious disease of unknown origin: a clinical study based on 221 cases. Am J Med Sci 1910;139:482-502.
7. Maxcy K F. An epidemiological study of endemic typhus (Brill's disease) in the southeastern United States with special reference to its mode of transmission. Public Health Rep 1926;4:2967-95.
8. Zinsser H. The rickettsial diseases, varieties, epidemiology and geographical distribution. Am J Hyg 1937;25:430-63.
9. Dyer R E, Rumreich A, Badjer LF. A virus of the typhus type derived from fleas collected from wild rats. Pub Health Rep 1931;46:334-38.
10. Murray ES, Baehr, G, Shwartzman G, et al. Brill's disease. I. Clinical and laboratory diagnosis. JAMA 1966;142:1059-66.
11. Price WH. Studies on the interepidemic survival of louse-borne epidemic typhus fever. J Bacteriol 1955;68:106-107.
12. Smadel JE; Ley HL Jr.; Diercks FH, Cameron JAP. Persistence of Rickettsia tsutsugamushi in tissues of patients recovered from scrub typhus. Am J Hyg 1952;56:294-302.
13. Parker RT, Menon PG, Merideth AM, Snyder MJ, Woodward TE. Persistence of Rickettsia rickettsii in a patient recovered from Rocky Mountain spotted fever. J Immunol 1954;73:383-86.
14. Zinsser H. Rats, Lice and History. Atlantic Monthly Press, 1945, 301.
15. Sonenshine DE, Bozeman FM, Williams MS, et al. Epizootiology of epidemic typhus (Rickettsia prowazeki) in flying squirrels. Am J Trop Med Hyg 1978;27:339-49.
16. McDade JE, Shepard CC, Redus MA, et al. Evidence of rickettsial infections in the United States. Am J Trop Med Hyg 1980;29:277-84.
17. Evans A. J Infect Dis 1918;22:580.
18. Craig CF. The symptomatology and diagnosis of Malta fever with report of additional cases. Int Clin 15th Ser 1906;4:89.
19. Keefer CS. Report of a case of Malta fever originating in Baltimore, Maryland. Bull Johns Hopkins Hosp 1924;35:6.
20. Darling ST. A protozoan general infection producing pseudotubercles in the lungs and focal necrosis in the liver, spleen and lymph nodes. JAMA 1906;46:1283-85.
21. Schwarz J, Baum FL. The history of histoplasmosis, 1906 to 1956. N Engl J Med 1957;256:253-58.
22. Emmonds W. Isolation of *Histoplasma capsulatum* from soil. Pub Health Rep 1949;64:892-96.
23. Koch R. Die aetiologie der tuberculose. Berl Klin Wehnschr 1882;19:221.
24. Smith TA. A comparative study of bovine tubercle bacilli and of human bacilli from sputum. J Exp Med 1898;3:451.
25. Ashford BK, Payne GC, Payne FK. Acute uncinariasis from massive infestation and its implications. JAMA 1933;101:843. ■

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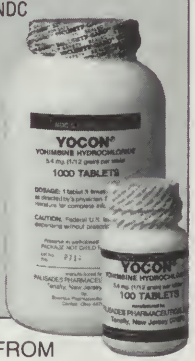
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References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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Doctor, I am 60 years old and control my diabetes with diet and exercise fairly well. When I measure my blood glucose the readings range from 150 mg/dL to 220 mg/dL. No matter what I do I cannot bring them down below 120 mg/dL. I am about 25 pounds over my desirable weight. My physician says that I do not need an oral agent for my diabetes, but I would like to do something to improve my blood glucose readings. What are your recommendations?

Your present blood glucose readings are higher than those recommended by the American Diabetes Association as representative of optimal control.

As a first step, you should make an accurate diary of your food intake for a few weeks and then visit a dietitian for a total review of your meal plan. There must be some problem with your present plan. Perhaps your total calories are more than you need for your activity, or the sizes of your servings are not correct.

Learn to read labels when shopping and remember that how well your follow your meal plan depends upon how well your shop. Work with your dietitian for several visits or until you are sure that your meal plan is appropriate and accurate. Usually a weight loss of about 10 pounds will bring your blood glucose readings into the normal range (80 mg/dL to 120 mg/dL before meals and at bedtime).

I agree with your physician that an oral agent is not indicated at this time.

The second step, if there is no medical contraindication, is to establish (and follow consistently) a structured exercise routine, such as walking two miles each day or playing tennis or swimming for an hour. As with meal planning, exercise should be scheduled into the daily program and adhered to strictly.

If after two or three months of structured exercise and good dietary habits, you continue to have elevated blood glucose levels, your physician should consider the use of an oral agent or insulin for the control of hyperglycemia. Persistent hyperglycemia could lead to complications of your diabetes.

DeWITT E. DeLAWTER MD
Editor

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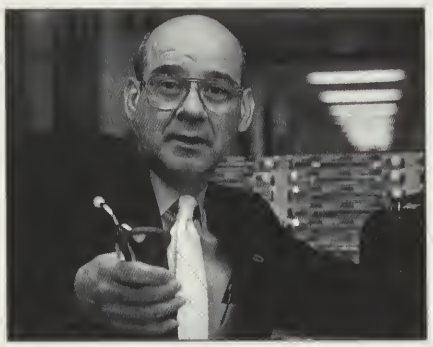
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Combined Modality Therapy of Esophageal Cancer

There will be approximately 10,000 new cases of esophageal cancer diagnosed in the United States this year, and 9,400 deaths from the disease. The majority of esophageal cancer is histologically squamous cell; however, the incidence of adenocarcinoma of the distal esophagus associated with Barrett's epithelium has been increasing in recent years. The major risk factors for squamous cell carcinoma are the excessive use of tobacco and alcohol, lye stricture, and the Plummer-Vinson syndrome. Despite advances in surgical techniques and radiation therapy, the prognosis for patients with this diagnosis is exceedingly poor. The most recent data published by the American Cancer Society indicates a five-year survival rate of 7 percent for whites and 5 percent for blacks.

The standard "curative" treatment for esophageal cancer that is clinically localized at diagnosis is esophagectomy. All macroscopic disease can be removed in approximately two-thirds of those patients who do go to surgery, and the five-year survival rate for this subgroup ranges from 8 to 22 percent with a median survival time of 12 months. Neither radiation therapy as a single treatment modality nor when added to resection has altered the prognosis. However, preoperative radiation therapy may improve local control and resectability. This poor survival rate is due to early occult dissemination, which is characteristic of the natural history of this disease. Death results not only from the complications of local-regional disease (inanition, aspiration pneumonia) but also from distant metastases present in over 50 percent of patients at autopsy. Thus, the incorporation of systemic therapy into the initial management of esophageal cancer is logical approach to attempt to improve survival outcome. This has been the focus of combined modality investigational trials over the past decade.

Cytotoxic agents with activity in esophageal cancer include cisplatin, bleomycin, the vinca alkaloids vindesine and vinblastine, mitoguazone (MGBG, methyl-GAG), mitomycin, and 5-fluorouracil (5-FU). Combinations of these drugs tested in newly diagnosed patients result in tumor regression (complete and partial responses) in 40 to 60 percent of patients, suggesting potential therapeutic benefit. The sequencing of chemotherapy, surgery, and/or radiation therapy in published combined modality trials has been either

1. chemotherapy alone for 2 or 3 cycles followed by esophagectomy with or without postoperative radiation therapy
2. concurrent chemotherapy and radiation therapy followed by esophagectomy
3. concurrent chemotherapy and radiation therapy without surgical resection

The first approach has been favored by investigators at Memorial Sloan Kettering Cancer Center.[1] Their best results were achieved using cisplatin + bleomycin + vindesine for 2 cycles prior to esophagectomy. A 63 percent partial response rate was observed and the median survival time of those resected was 16.2 months. This was significantly better than a historic control group survival of approximately 9 months. However, a randomized trial comparing this regimen to esophagectomy recently was reported by Roth *et al.* in which no survival differences were observed.[2] Cisplatin + 5-FU and the combination of cisplatin + mitoguazone + vinblastine also have been tested preoperatively without significant improvement in survival rates compared to historic controls. Thus, chemotherapy as a single modality prior to esophagectomy does not appear to impact on survival. Although overall response rates are good, few patients achieve complete clinical or histologic regression of disease.

More promising results, however, have been reported with concurrent chemotherapy and radiation therapy (RT) followed by esophagectomy. Investigators from Wayne State University have explored this approach over the past ten years. Trials of either mitomycin + 5-FU or cisplatin + 5-FU concurrent with 3000 rad, conventional fractionation RT resulted in histologic complete responses in 26 percent of resected patients and a median survival of 18 months. Complete responders had prolonged survival in excess of three years; however, all developed recurrent disease within 30 to 60 months following resection.[3] Both the Southwest Oncology Group and the Radiation Therapy Oncology Group have conducted non-randomized trials of concurrent cisplatin + 5-FU and RT. These studies confirmed that a histologic complete response occurs in approximately 25 percent of patients, although the median survival time of all patient was not improved, ranging between 12 and 14 months. Thus, results of the Wayne State scheduling of chemotherapy and RT suggest improvement in survival for histologic complete responders but no benefit for the study population as a whole.

The University of Michigan recently reported the results of an intensive three week preoperative simultaneous chemotherapy (cisplatin + 5-FU + vinblastine) and RT protocol in 43 patients with local-regional adeno or squamous cell esophageal cancers. Eighty-one percent of patients had an esophageal primary over 5 cm in length, circumferential or obstructing, and 56 percent had enlarged regional nodes on CT scan. Following preoperative treatment, 84 percent were completely resected and 24 percent of patients had no evidence of tumor in the resected esophagus and nodal tissue. At a median follow-up of 32 months, the median survival time of all patients registered in the study has not been reached,

70 percent of completely resected patients and 100 percent of histologic complete responders are alive at 36 months.

The median survival time by histology is 21 months for the squamous cell patients and has not been reached for the adenocarcinoma patients.[4] These data suggest survival benefit for all resected patients (not just histologic complete responders) and a significant improvement in survival compared to historic controls undergoing transhiatal esophagectomy whose median survival was only 12 months. This trial differed from other concurrent chemotherapy and radiation therapy preoperative protocols in the intensity of treatment administered over three weeks rather than the six to eight weeks used for the Wayne State and similar regimens.

Chemotherapy consisted of 5-FU administered continuously for the entire 21-day course of the RT, cisplatin administered by continuous infusion over the first 5 days and last 5 days of RT, and vinblastine. A higher total dose of RT was administered, 4500 rad using BID fractionation. Lastly the transhiatal esophagectomy, a low morbidity and low mortality procedure that does not require thoracotomy, was the surgical procedure of choice. At the University of Michigan a randomized trial is in progress to convincingly determine if survival is prolonged by this therapy compared to esophagectomy.

The third combined mortality approach is the concurrent use of chemotherapy and RT without surgical resection. Infusional 5-FU and RT, 5000 to 6000 rad have been reported for the treatment of both early and late stage esophageal cancer. Clinical complete responses have been observed. Combination chemotherapy regimens of either cisplatin + 5-FU or mitomycin + 5-FU have been reported more recently for patients with early stage disease. Investigators at the Fox Chase Cancer Center have tested this approach since 1980. They report an 87 percent clinical complete response rate determined by barium swallow following infusional chemotherapy with 5-FU + mitomycin concurrent with RT. The median survival time was 24 months with 34 percent of patients alive at 5 years.

While these results appear improved compared to the 12-month median survival generally quoted for esophageal cancer patients, one should note that 40 percent of patients in this trial had primary tumors less than 5 cm in length. The three-year survival of these patients with small primaries was 50 percent compared to 39 percent for tumors greater than 5 cm, and surgical salvage was used for patients who developed a local recurrence but had no evidence of distant metastases.[5] These data suggest that chemotherapy and RT can improve local control and, for patients with early stage disease limited to a small primary, may provide effective, nonsurgical management. However prospective randomized trials comparing surgery vs. RT as the local treatment modality need to be performed before surgery can be bypassed. It is clear from large prospective studies evaluating local control from RT that radiation therapy will provide improvement in dysphagia in approximately 66 percent of patients for 2 or 3 months, while esphagectomy will restore swallowing function.

In summary, most patients are diagnosed with advanced local-regional disease at the time of presentation. Systemic therapies with antitumor activity as well as radio-sensitizing capability (cisplatin and 5-FU) administered concurrently with RT appear most promising for achieving a high histologic complete response rate and survival prolongation. The choice of definitive local treatment, radiation therapy vs. esophagectomy is controversial. Esophagectomy, in particular a transhiatal esophagectomy, remains the local treatment of choice for patients who are good operative risks. Appropriate randomized trials need to be performed before any one treatment approach can be selected as optimal for the primary management of esophageal cancer. At the Johns Hopkins Oncology Center, we recommend an investigational protocol for all newly diagnosed patients with disease confined to the primary $\pm$ regional nodes. This consists of four weeks of continuous infusion cisplatin, 5-FU, and vinblastine chemotherapy and concurrent daily RT (4400r) followed by transhiatal esophagectomy.

References

1. Kelsin D, Bains M, Hilaris B et al. Combined modality therapy of esophageal cancer. Semin Oncol 1984;11:169-77.
2. Roth JA, Pass HI, Flanagan MM et al. Randomized clinical trial of peroperative and postoperative adjuvant chemotherapy with cisplatin, vindesine, and bleomysin for carcinoma of the esophagus. J Thorac Cardiovasc Surg 1988;96:242-48.
3. Herskovic A, Leichman L, Lattin P et al. Chemo/radiation with and without surgery in the thoracic esophagus: The Wayne State Experience. Int J Radiat Oncol Biol Phys 1988;15:655-62.E
4. Forastiere AA, Orringer MB, Perez-Tamayo C et al. Concurrent chemotherapy and radiation therapy followed by transhiatal esophagectomy for local-regional cancer of the esophagus. J Clin Oncol, in press, 1989.
5. Coia L, Engstrom P, Paul A. Nonsurgical management of esophageal cancer: Report of a study of combined radiotherapy and chemotherapy. J Clin Oncol 1987;5:1783-90.

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From the Johns Hopkins Oncology Center ■

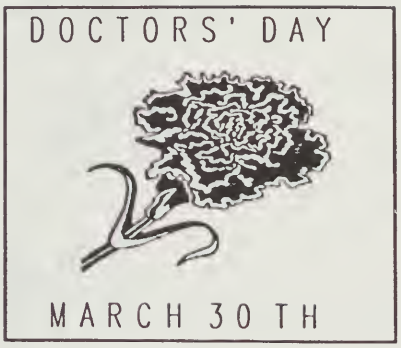
Medical Heritage - Doctors' Day - March 30

Our Maryland Auxiliary has taken a special interest in Medical Heritage and Doctors' Day over the past few years, and our recognition, entertainment, and historical remembrance of our physicians frequently have put us in the limelight at Southern Medical Association Conventions where our activities have been displayed and honored. The memorable display on Dr. Archer of Harford County assembled by Diane Sitaris and augmented by mementos (supplied by Med Chi's Librarian Joseph Jensen) won us an inscription on the Feldner Trophy, the first time our Maryland exhibits were so honored. We received an award for best state exhibit with our display of women physicians in Maryland and on Med Chi that stressed the early women in Maryland medical schools and presented the fascinating career of Dr. Zoraida Lee-Llacer, a foreign-born woman physician, her practice and life in Maryland.

This year our project of postal plates for Doctors' Day was initiated as a Southern Medical Association seventeen-state project for the entire Auxiliary membership. Instead of receiving a specific award, our project was enthusiastically endorsed as a special Doctors' Day project to be implemented throughout the South and available to all counties. This endorsement is a truly great honor; rarely do the individual state projects attain a total Auxiliary stature.

The project that has achieved such prominence is centered on physician recognition through a postal plate inscribed "Doctors' Day - March 30th" with a carnation. It is designed to be used throughout the month of March on all mailings of the recipient and prints in red, which is very effective. The postal plate was first given to Med Chi for use on their March mailings, to Dean Ross of Johns Hopkins School of Medicine, and to Dean Dennis of University of Maryland Medical Systems. After initiating the program at this level through the state program, a pilot project was tried at the county level. Howard County General Hospital President Donald Jacobs was asked if he would accept an auxiliary gift of a Doctors' Day postal plate for his hospital's March mailing; the gift was duly accepted and used. At that point the venture was opened to all Auxiliary counties, and plates were ordered for hospitals from Cumberland, Allegany County, to Harford and points south. The plates, ordered through Pitney-Bowes and International Mailing Systems, have been a successful and unique way of recognizing our doctors during their special month.

When the project was first discussed with now president of Southern Auxiliary, Janet Campbell, she asked that a comprehensive presentation of the plate, the procedure, design, use, etc., be given to her new Board during the convention in DC this past November. With the assistance of the Graphics Department of



Med Chi, an explanatory poster was created that clearly demonstrated what the postal plate actually was, how it was designed, and how it would be used. Their flier carried sample letters used in setting up the project, an enlargement of the art work, and a sample of how the meter ad looked on the envelope.

Other Maryland members of the Southern Board who assisted with the presentation (Helen Boyer, Betty Molz, Mary Skipton, and Ching Barretto) were very helpful in seeing that all went smoothly, and the Southern Board was quite impressed by our project.

Information has been dispensed to all the Southern States, and Pitney-Bowes has established a central 800 number that will facilitate ordering. The project need not be limited to Auxiliary but can be used by others who would like to honor their physicians in this way. Information is available at our Auxiliary Office or through Mildred Taylor, Maryland Councilor to Southern. Thanks to her three years on the Med Chi Public Relations Committee and the suggestion of Dr. Maganzini two years ago, the Doctors' Day Postal Plate has become a reality and a true success story for Maryland.

MILDRED TAYLOR

Auxiliary to the Medical and Chirurgical Faculty of Maryland. Mrs. Victoria Cameron, President; Mrs. Betty J. Molz, Editor. ■

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from "The Sick Physician", a report to the Council on Mental Health adopted by the AMA House of Delegates, November 1972.

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The *Maryland Medical Journal* is your publication, an important communication tool to convey scientfic and practice information. Please take a moment to let us know what you'd like to read in *MMJ* by completing this brief survey.

1. How often do you read *Maryland Medical Journal?*

_____ Always (several articles each issue) _____ Sometimes (three or four articles a year)
_____ Seldom (skim occasionally) _____ Never

1A. If you answered "never" to question 1, which of the following best describes your reason for not reading *Maryland Medical Journal*?

_____ I rarely find articles of interest _____ I have too many other journals to read
_____ I don't have time to read it Other _____

2. How many other people read your copy of *MMJ*?

_____ 0 _____ 4-6 _____ 10 or more
_____ 1-3 _____ 7-10

3. Which of these topics would you like to see discussed in *MMJ*?

_____ More scientific articles _____ Federal legislation
_____ More socioeconomic articles _____ Money management
_____ Insurance coverage and rates _____ The future of medicine: what to expect in the 1990's
_____ PR activities for physicians _____ Professional growth for medical society leadership
_____ Insurance payment problems _____ Meetings, how to plan them, where to have them
_____ Continuing medical education Other _____
_____ Maryland legislation

4. Do you think 12 issues per year of *MMJ* are:

_____ The right number ___ Too many _____ Not enough

5. The quality of the articles appearing in *MMJ* is:

_____ Consistently high ___ Variable _____ Mediocre ___ Consistently low

6. I most often read: (check as many as apply)

_____ Scientific articles _____ The Executive Director's newsletter _____ Doctor's Note
_____ Classified ads _____ The DHMH newsletter
_____ Board of Physician Quality Assurance Actions
_____ A regular department (i.e., One Minute With Diabetes, Library Page, etc.)
Other _____

7. The articles that have appeared in *MMJ* have contributed to my professional knowledge and growth.

_____ Greatly _____ Somewhat _____ Little

8. The number of pages in *MMJ* is:

_____ Too great _____ Too few _____ About right

9. I would like to see *MMJ*: (check as many as apply)

_____ Remain about the same _____ Increase its size; carry more articles
_____ Decrease its size;carry fewer articles _____ Increase the ratio of ads to text
_____ Decrease the ratio of ads to text

10. Have you ever submitted an article or commentary to *Maryland Medical Journal* for publication?

_____ Yes _____ No

10A. If "No", why not?

11. How would you rate *Maryland Medical Journal* on:

	excellent	good	fair	poor	no opinion
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Accuracy	_____	_____	_____	_____	_____
Interest	_____	_____	_____	_____	_____
Ease of reading	_____	_____	_____	_____	_____
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12. What do you like least about *Maryland Medical Journal*? (please print)

13. What do like most about *Maryland Medical Journal*? (please print)

14. How often do you use the advertisers who appear in *MMJ*?

_____ Often
_____ On occasion
_____ Seldom
Never (If "never" why not?) _____

15. This survey *is* anonymous, but we would appreciate the following information:

A. Your age group:

_____ 30 or under _____ 41-50 _____ 61-70 group
_____ 31-40 _____ 51-60 _____ over 70

B. Your primary specialty: _____

C. Work situation:

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Optional: Please call me, I have more to say. (Please print your name and number below)

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A Comment on the Doctor and Hospital Responsibility

Traditionally, the duty of the hospital to the patient has been confined to providing a satisfactory place in which the physician could furnish care. The doctor and the patient formed an independent unit, and the physician was solely responsible for therapy. The hospital was not accountable for the negligence of the doctor in the absence of agency or other factors to which the doctrine of respondeat superior could be applied.

This concept has been changed radically by legal opinion. The lawyer for the appellee and the courts now also focus on the errors of the hospital board and the medical staff with reference to the physician being sued. A review of the credentialing and monitoring process may yield evidence indicating negligence of the medical staff and of the managing board by lack of supervision.

The corporate structure is expected to see that quality care is provided to its patients so that they can reasonably look for a satisfactory result from their hospital stay. Not only must the board appoint competent individuals to its medical staff but also it must monitor the care they give. The link between the individual practitioner and the board is the medical staff.

All the states and the Joint Commission on Accreditation of Hospitals Organization have mandated that every hospital must have an organized medical staff. Members of the staff, through action of its credentialing committee, are authorized by the corporation to recommend or deny approval for applications for staff appointments. Further, they should carefully delineate initial clinical privileges. Every physician must expect to have his/her competence monitored during the term of appointment and if changes are deemed necessary they should be recommended by the staff. The governing board, after weighing the thoughts of the staff, may or may not adopt them. The reasons for rejections, at any stage, however, must be identified and noted in writing. This caveat is most important if the rejected physician protests and wishes to go through the due process of appeal. Dissension between medical staff and governing body most often arises from lack of proper communication and a failure of each unit to appreciate the duties and responsibilities of the other. Each group is necessary to provide quality care in the operation of the hospital.

The legal status of the medical staff, the all-important link between the physician and the managing board, has been clearly defined by the American Medical Association.[1] Professionally independent in medical judgment, the staff is not autonomous in administrative relations with the hospital. An organized medical staff is a legally separate entity, however, representing the collective professional responsibility of its individual members in the administration of medical care in the hospital. In other language, the staff is a separate part of the hospital but only to the extent that part is a portion of the whole with defined intramural relationships and reciprocal obligations.

Willett,[2] Legal Counsel to the California Medical Association, cited some interesting legal opinions about the medical staff, which may be considered to be an unincorporated association organized under the auspices of the Board of Directors. Membership on the staff, however, does not mean personal liability if the staff is sued. Staff duty is to the governing body and not to the public, which looks upon the Hospital and not the Medical Staff as the responsible agent. Indeed, California courts consistently have held that staff members are not liable for the unlawful acts of other members without their participation, knowledge, or approval. Willett offered a warning that staff members may be held liable for anticompetitive conduct in which they participate, however, whether or not the medical staff is treated as a medical entity.

Within this context, the relationship of the individual physician to the governing body becomes clear. Both sides are interested in the same objective: providing excellent care. The following legal cases have been selected to highlight details of this association.

Corporate responsibility had its genesis in *Darling v. Charleston Community Memorial Hospital*[3] when the Supreme Court of Illinois maintained that the corporation was obligated to its patients to see that quality care was provided. In the immediate instance, the hospital was negligent in failing to observe that the proper committee did not review the work of the involved doctor and to require that he obtain a consultation to achieve the desired outcome. The hospital was also delinquent in neglecting through its nursing staff to supervise the clinical course of the patient.

The decision in *Darling* firmly bound hospital and physician through the medical staff to the care of the patient. Lack of supervision was apparent in the activities of the medical staff (medical) and the hospital board (administrative).

Poor oversight by the surgical staff (for which the hospital was ultimately answerable) existed in *Purcell v. Zimbleman*[4] in which a poor result followed the performance of an inappropriately selected operation. Previous similar unsatisfactory results of the physician had been reviewed in the department of surgery, but discussion, counseling, or restriction of the operative activities of the surgeon did not result. The Courts found for the patient because the hospital was negligent in not seeing that the therapy of the accused physician was monitored and some corrective action taken.

Failure to verify the answers of a physician in his application for privileges led to difficulty in *Johnson v.*

Misericordia Community Hospital.[5] The replies were false, and if the truth had been known, the physician would have been denied privileges. The surgeon was subsequently accused of performing a procedure not in accord with good orthopedic practice. Undisputed expert testimony established that the doctor was in error. The hospital was also found to be negligent. The Court declared that even although the governing body may rely on the medical staff and its credentials committee in consideration of the qualifications of an applicant, delegation of responsibility to investigate and evaluate professional competence for clinical privileges does not relieve the hospital board of its duty to its patients to appoint only qualified doctors to the medical staff and to monitor and review competence in a periodic manner. The Court was forthright in its condemnation of the hospital inasmuch as it had clearly violated the fundamentals of the credentialing process. In addition, the hospital did not have a functional medical staff.

In review, the Courts have stated unequivocally that:

1. A hospital shall have a system to evaluate applicants for membership on its medical staff.
2. It shall use criteria such as character, competence, and training in the selection process.
3. The standard required for admission shall be defined and clearly stated.

The possession of a license to practice and of privileges in other hospitals, if any, must be verified. Letters of recommendation should be factual to assure the presence of competence. The applicant should have malpractice insurance and report if he/she has had previous difficulty involving litigation.

In summary, the practitioner, through the medical staff and the board of directors, have a common interest to provide quality care for the patient. Lacking medical qualifications, the board must authorize the performance of professional care by the medical staff, and then monitor the work of the individual physician through the staff that oversees medical activities. Professional independence is a mainstay of the medical staff but the lay board must be knowledgeable of the activities of the physicians to be certain they are and remain competent and are conducting themselves in a manner that will promise quality care to the patient.

JOSEPH M. MILLER MD
Liberty Medical Medical Center, Inc.

References

1. Office of the Legal Counsel, American Medical Association. Legal Status of the Hospital Medical Staff. Chicago: American Medical Association, 1985, 38.
2. Willett DE. What Physicians Should Know about the Legal Status of the Medical Staff. San Francisco: California Medical Association, 1984, 19.
3. Dorrence Kenneth Darling, II, Appellee v. Charleston Community Memorial Hospital, Appellant, No. 38790, 211 N.E. 2d, 253-261.
4. Coy L. Purcell and Tucson General Hospital, a Corporation, Appellants v. Thelma Zimbelman, as Administratrix of the Estate of Harry Zimbleman, Deceased, Appellee, No. CA-CIV 1130, 500 p. 2d, 335-351.
5. James Johnson, Plaintiff-Respondent v. Misericordia Community Hospital and Employers Mutual Liability Insurance Company of Wisconsin, Defendants - Appellants-Petitioners. No. 79-696. 99 Wis 2d, 708-745. ■

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Med Chi and Medical Mutual Offer 5 Percent Premium Discount for Physicians

On January 5, 1989, Med Chi and the Medical Mutual Liability Insurance Society of Maryland announced their sponsorship of "Effective Communications: A Risk Management Strategy," a workshop designed to teach physicians how improved communications skills can enhance quality of care and reduce the risk of medical malpractice claims.

Med Chi President, Raymond M. Atkins MD, said, "This workshop will provide a valuable service to our physicians and is a way that Med Chi can meet the needs of its membership."

Chairman of the Board and Chief Executive Officer for Medical Mutual, Raymond M. Yow MD, said, "Because communication plays an important role in professional liability, Medical Mutual will offer a 5 percent premium discount on 1991 medical professional liability renewal policies to all our members who successfully complete this workshop in 1990."

"Many studies have suggested that the medical community needs to improve its communication skills," said Dr. Yow, "and achieving this objective could offer significant improvement to the medical liability problem." Dr. Yow added that this workshop will influence medicine in a positive way as it will reduce insurance costs for physicians.

The workshop, provided by Communications Systems, Inc., will teach physicians the value of effective physician-patient communications and its link to risk management. The workshop, which fulfills 3 Category I CME credits, will include group discussions, exercises, and practical tips for improving communications.

Physicians who are unable to attend the workshop may complete *Risk Prevention Skills*, a self-study course by Dan J. Tennenhouse MD, JD, FCLM, and Mary P. Kasher RN, MS, JD The self-study course points out common physician-patient communication and record-keeping errors through clinical examples and offers advice on responding to each situation. The course includes computer-scored test questions and is approved for 6 credit hours in Category I of the Physician's Recognition Award of the American Medical Association by Extended Programs in Medical Education of the University of California School of Medicine in San Francisco.



Dr. Atkins and Dr. Yow announce 5 Percent Premium Discount. (Seated left to right) Raymond M. Atkins MD, Med Chi President; Raymond M. Yow MD, CEO Medical Mutual, David A. Murray, Medical Mutual President.

For workshop dates and registration information, please see the form on the following page.

Physician Placement Services

The Medical and Chirurgical Faculty of the State of Maryland maintains a Placement Service for the convenience of Maryland physicians, hospitals, and communities in search of candidates for positions available in our state. A detailed description of such opportunities should be forwarded to:

Physician Placement Service
1211 Cathedral St., Baltimore, MD 21201
(301-539-0872)

Physicians wishing to locate in Maryland are invited to submit a resume to be kept on file with the *Physician Placement Service.* Candidates are requested to inform the Faculty when they are no longer available for consideration for opportunities in Maryland.

MMJ announcements on the Classified Advertising page for Physician Placement Service are charged at the regular Classified Advertising rate.

Doctor, Planning to Relocate?

If you are moving or planning to, let us know so that you won't miss a single issue of ***Maryland Medical Journal.*** Fill out the form below and mail it to:

Wanda Griebel
MMJ 1211 Cathedral Street
Baltimore, MD 21201

Old Address
Name: _____
Address: _____
City/Town: _____
State: _____ *Zip:* _____

New Address
Name: _____
Address: _____
City/Town: _____
State: _____ *Zip:* _____
Telephone: _____ *Date Effective:* _____

Signature: _____ *Date:* _____

"Effective Communications: A Risk Management Strategy"
Workshop Dates and Locations

Workshop sessions are scheduled at Medical Mutual, 225 International Circle, Hunt Valley, MD, and at the Med Chi Faculty Building, 1211 Cathedral St., Baltimore, MD. Minimum and maximum registrations have been set for each workshop. All workshops run from 6 p.m. to 9 p.m. A schedule of dates and locations for the workshops is listed below.

March 6	Medical Mutual
March 12	Medical Mutual
March 19	Medical Mutual
March 27	Med Chi
April 2	Medical Mutual
April 3	Med Chi
April 11	Med Chi
April 17	Medical Mutual
April 23	Med Chi
May 14	Medical Mutual
May 15	Medical Mutual
May 22	Medical Mutual
May 23	Medical Mutual
June 4	Medical Mutual
June 5	Medical Mutual
June 11	Med Chi
June 12	Medical Mutual
June 13	Medical Mutual
June 18	Medical Mutual
June 19	Medical Mutual
July 9	Medical Mutual
July 10	Medical Mutual
July 17	Medical Mutual
July 18	Medical Mutual
July 23	Medical Mutual
July 24	Medical Mutual
August 20	Med Chi
August 21	Medical Mutual
August 27	Medical Mutual
August 28	Med Chi
September 10	Medical Mutual
September 11	Medical Mutual
September 17	Medical Mutual

Communications Systems, Inc. will hold workshops at other locations around the state by special arrangement for interested groups. To allow time for processing of discounts for Medical Mutual members, no workshops will be scheduled after September 17, 1990.

If you have questions or need more information about the workshop or the self-study course, please call Doris Duffy at Communications Systems, Inc. To register for the workshop, please complete the registration form below.

. . . . . .

Workshop Registration or Self-Study Course Order Form

One form per person, please. Form may be photocopied if necessary. Please print clearly.

Name: _____

Address: _____

Phone Number (301)_____

Workshop Registration

Give date and location of workshop you wish to attend:

Date: _____ Location:_____

Cost $35

Self-Study Course Order Form

Course must be ordered by August 1, 1990 and completed by September 15, 1990.

Cost $70

Please include your check payable to: **Communications Systems, Inc.** and mail this form to:

Communications Systems, Inc.
The Atrium, Suite 101
723 South Charles St.
Baltimore, MD 21230

In the Matter of Edward R. Burka MD Before the Maryland Board of Physician Quality Assurance

Final Decision

On June 26, 1989 the Board of Physician Quality Assurance (the Board) issued charges against Edward R. Burka MD (Respondent) pursuant to Health Occupations Article, *Annotated Code of Maryland* (HO) §14-504(b). Specifically the Board charged as follows:

> Subject to the Administrative Procedure Act, the Board shall order the suspension of a licensee if the licensee is convicted of or pleads guilty or *nolo contendere* with respect to a crime involving moral turpitude, whether or not any appeal or other proceeding is pending to have the conviction or plea set aside. (HO §14-504(b)(1))
> After completion of the appellate process if the conviction has not been reversed or the plea has not been set aside with respect to a crime involving moral turpitude, the Board shall order the revocation of a license subject to the hearing provisions of 14-505 of this subtitle. (HO §14-504(b)(2))

The charges were a result of Respondent's plea of guilty in *United States v. Edward R. Burka*, United States District Court for the District of Pennsylvania.[1]

The charging document provided Respondent with notice of the statutory basis of the charges, the alleged factual basis supporting the charges, the time, place, and nature of the hearing. Respondent was also notified that HO §14-505(d) provided

> If after due notice the individual against whom the action is contemplated fails or refuses to appear, nevertheless the hearing officer may hear and refer the matter to the Board for disposition.

and the COMAR 10.01.03.25(b) provided that

> The hearing examiner may, with consent of the parties, conduct all or part of the hearing by telephone, television, or other electronic means, if each participant in the hearing has an opportunity to participate in, to hear, and, except when telephone is used, to see the entire proceeding while it is taking place.

The hearing was scheduled on August 14, 1989. Respondent did not appear. The case proceeded before a Hearing Officer with Administrative Prosecutor, Debra G. Woodruff, Assistant Attorney General, representing the State. The State introduced the following exhibits:

State Exhibit No. 1 - Package of documents mailed to the Respondent under certified mail number P-546912984. The document consisted of a three (3) page letter of procedure dated June 26, 1989 addressed to the Respondent; a Summons and Notice of Hearing two (2) pages in length, a Charging Document four (4) pages in length, with attached Exhibits A through C.
Exhibit A - the Judgment in Criminal Case 88-00228-1, *United States of America v. Edward R. Burka*, consisting of two (2) pages, dated January 24, 1988.
Exhibit B - Plea Agreement in *United States of America v. Edward R. Burka*, Criminal Case 88-00228-1 consisting of ten (10) pages, dated December 7, 1988.
Exhibit C - Consent Motion of Dismissal in *In re the Matter of Edward R. Burka*, U.S. Court of Appeals for the Third Circuit, No. 88-1432, consisting of three (3) pages, dated December 7, 1989.
State Exhibit No. 2 - Certified mail receipt showing receipt at Eglin Air Force Base dated June 28, 1989 by Sandra Glorig.
State Exhibit No. 3 - Copy of a telefaxed transmittal showing receipt by the Respondent of the package from prison authorities on June 28, 1989.

By letter dated August 16, 1989, the Hearing Officer issued to Respondent and the State a proposed decision which included proposed findings of fact, proposed conclusions of law, and a recommended sanction. The parties were advised of their right to file exceptions to the proposed decision. On October 11, 1989, the Chief Investigator for the Board spoke with Respondent and ascertained that Respondent had received the Hearing Officer's proposed decision. Neither Respondent nor the State filed exceptions to the Hearing Officer's proposed decision. The Board considered the Hearing Officer's proposed decision at its meeting on Wednesday, November 8, 1989. By a majority vote of its full authorized membership the Board issues the following Final Order and Decision.

Findings of Fact

Based on clear and convincing evidence the Board finds as follows:

1. At all times relevant to these charges, the Respondent was and is licensed to practice medicine in Maryland.

2. Respondent pleaded guilty to unlawful possession of controlled substances, Dilaudid tablets, with intent to distribute and dispense outside the course of accepted professional medical practice and for no legitimate medical purpose in violation of 21 U.S.C. §841(a)(1); furnishing false information in a required record in violation of 21 U.S.C. §843(a)(4)(A); and obstruction of an agency proceeding in violation of 18 U.S.C. §1505 in *United States v. Edward R. Burka*, the United States District Court for the Eastern District of Pennsylvania.

3. Respondent was sentenced by the Court of the offenses set forth in Paragraph 2 on January 24, 1989.[2]

1. The plea of guilty provided that Respondent agreed to surrender permanently his license to practice medicine in every state in which he had a license. HO §14-504(a) provides that licensed physician may not surrender the license while the licensee is under investigation or while charges are pending against the licensee. HO §14-504(b) provides that the Board may set conditions on its agreement with the physician under investigation or against whom charges are pending to accept surrender of the license. The Board did not accept the surrender of Respondent's license. The Board decided to proceed against Respondent's license.

4. The crime involved in violation of 21 U.S.C. §841(a)(1) is a crime involving moral turpitude.

5. The crime involved in violation of 21 U.S.C. §843(a)(4)(A) is a crime involving moral turpitude.

6. The crime involved in violation of 18 U.S.C. §1505 is a crime involving moral turpitude.

7. All opportunities for appeal have lapsed since Respondent, as part of his plea negotiated with the United States Government, forfeited all appellate rights.

8. There is no evidence upon which the Respondent might rationally seek extraordinary relief from his conviction.

Conclusion of Law

Based on clear and convincing evidence and the findings of fact, by a majority vote of its full authorized membership the Board concludes that Respondent was convicted and pleaded guilty with respect to a crime involving moral turpitude in violation of HO §14-504(b).

Order

Based on the findings of fact, conclusion of law, on this 21st day of November 1989 it is hereby

ORDERED that Respondent's license to practice medicine is REVOKED; and it is further hereby

ORDERED that Respondent IMMEDIATELY must return his license certificate to the Board; and be it further

ORDERED that this is a Final Order and Decision.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

■ ■ ■

In the Matter of
Michael F. Corner
Physician Assistant
Before the
Maryland Board of
Physician Quality Assurance

Order of Summary Suspension of Certification to Practice as a Physician Assistant

The State Board of Physician Quality Assurance (the Board) herein sets forth the following background information as pertinent to this Order for Summary Suspension (the Emergency Suspension) with regard to the certification of Michael F. Corner to practice as a physician assistant.

1. Respondent was and is presently certified to practice as a physician assistant in the State of Maryland.

2. On or about March 22, 1989 Subject A* reported an act of alleged sexual abuse involving Respondent and her 9-year-old daughter, Subject B, to the State of Maryland Department of Social Services (DSS). DSS then referred the matter to the Baltimore City State's Attorney's Office (SAO).

3. On or about August 17, 1989 representatives of the SAO Sex Offense Unit interviewed Subject B, who stated that Respondent, whom Subject B identified as Subject A's boyfriend, on several occasions between January 1988 and June 1989, entered her bedroom and placed his hands between her legs on what Subject B referred to as her "private part" (denoting vagina).

4. On or about September 14, 1989 detectives of the Baltimore City Police Department interviewed Respondent in relation to these allegations. Respondent, after being advised of his Fifth Amendment rights against self-incrimination and, after agreeing to waive those rights, admitted to nonconsensual, involuntary sexual contact with Subject B and further admitted another instance of involuntary sexual contact with another young female while living in Indiana in 1974.

5. After the conclusion of this statement, Respondent was placed under arrest by detectives of the Baltimore City Police Department. Respondent was then indicted by the Grand Jury for Baltimore City on September 8, 1989 under indictment number 18827102 for the charge of third-degree sexual offense (see *Annotated Code of Maryland*, Art. 27 §461 and §464 B). Said charges are scheduled for trial in Baltimore City Circuit Court on December 12, 1989, Part 2.

Findings of Fact

Based on the background information set forth above and the exhibits hereto, the Board has reason to believe that the following facts are true:

1. Respondent was and is presently certified to practice as a physician assistant in the State of Maryland.

2. On or about May/June 1986, Respondent was employed as a physician assistant by the Mt. Royal Medical Center, Baltimore, Maryland. At that time, Respondent, in his capacity as a physician assistant, treated Subject A, a patient who sought medical attention at the Center.

3. Thereafter, Subject A sought employment as a secretary at a Mt. Royal Medical Center branch facility, the Northwest Medical Center, Baltimore, Maryland. Respondent then transferred his place of employment to this facility, and then became involved in a continuing personal relationship with Subject A.

2. The Board *sua sponte* takes notice that there is no docket entry from the Court indicating the date the Plea Agreement was entered and Respondent convicted. However, the Judgment of the Court dated January 24, 1989 indicates Respondent pled guilty and was convicted of the stated offenses.

*Subject names are not used in the Summary Suspension. The Board maintains a list of subject names which corresponds to the alphabetical letter used in the Summary Suspension. This list is available to Respondent upon request.

4. During the course of this personal relationship, Respondent cohabitated with Subject A and her children, among whom was her 9-year-old daughter, Subject B.

5. On September 14, 1989, Respondent was interviewed by Detective Joan McEntyre of the Baltimore City Police Department in which Respondent, after being advised of his Fifth Amendment rights against self-incrimination, and after agreeing to waive those rights, admitted the following:

(a) That during an 18-month period (from early 1988 until the time of the statement), Respondent, while cohabitating with Subject A and her family, on 8-10 occasions engaged in nonconsensual, involuntary sexual conduct with 9-year-old Subject B;

(b) That the conduct occurred primarily in Subject B's bedroom when Respondent perceived Subject B to be asleep;

(c) Respondent's contact consisted of "rubbing her back or stomach or something of that nature and also mak[ing] genital contact with my hand...";

(d) That Respondent answered affirmatively when asked if he, Respondent, had fondled Subject B's vagina;

(e) That Respondent engaged in similar nonconsensual, involuntary sexual conduct with another woman friend's daughter, while living in Indiana in 1974.

6. In his practice as a physician assistant, Respondent is certified to perform delegated medical acts under the supervision of a physician. These acts consist, but are not limited to, screening patients, performing physical examinations, performing developmental screening examinations on children, collecting specimens for laboratory tests and performing clinical procedures involving close physical contact with patients. Respondent, in admitting to engaging in involuntary and nonconsensual sexual contact with at least two young females, poses a grave risk and imminent danger to the public health, safety, and welfare of the citizens of Maryland in that in his capacity as a physician assistant Respondent maintains the opportunity, through the delegated acts which he is authorized to perform, to come into unsupervised, intimate physical with both children and adults.

Conclusions of Law

Based on the foregoing facts, the Board concludes that the public health, safety, and welfare imperatively requires emergency action in this case pursuant to State Government Article §10-405(b), *Annotated Code of Maryland*.

Order

It is this 29th day of November 1989 by the State Board of Physician Quality Assurance:

ORDERED that pursuant to the authority vested in the Board by the State Government Article, §10-405 of the *Annotated Code of Maryland*, Respondent's State certification to practice as a physician assistant in the State of Maryland be and hereby is SUMMARILY SUSPENDED, and be it further

ORDERED that if a hearing is requested to consider this SUMMARY SUSPENSION, it shall be held before the Board at its next regularly scheduled meeting, Wednesday, December 13, 1989.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

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In the Matter of Waheeda S. Qaiyumi MD Before the Maryland Board of Physician Quality Assurance

Final Decision Summary of Evidence, Findings of Fact, Conclusions of Law

On November 14, 1989 the Maryland Board of Physician Quality Assurance (the Board) charged Waheeda S. Qaiyumi MD (Respondent), pursuant to HO §14-504, Health Occupations Article of the Annotated Code of Maryland (HO). Respondent was charged as follows:

> Is convicted of or pleads guilty or *nolo contendere* with respect to a crime involving moral turpitude, whether or not any appeal or other proceeding is pending to have the conviction or plea set aside; HO §14-504(6)[1]
> Is ... convicted ... by a court of any state or country for an act that would be grounds for disciplinary action under this section; [HO §14-504(22)]

Grounds for disciplinary action under this section are:

> Is guilty of immoral or unprofessional conduct in the practice of medicine; [HO §14-504(3)]

1. The 1988 General Assembly, by Senate Bill No. 508 and House Bill 855, merged the functions of the Commission on Medical Discipline and the Board of Medical Examiners into the Board of Physician Quality Assurance. The General Assembly also amended Health Occupations Article, §14-504 by repealing HO §14-504(6) and enacting HO §214-504(b). Section 14-504(b) *requires* the Board to suspend a license if the licensee is convicted of or pleads guilty or *nolo contendere* to a crime involving moral turpitude, whether or not any appeal or other proceeding is pending to have the conviction or plea set aside. In addition, after the completion of the appellate process if the conviction has not been reversed or the plea has not been set aside with respect to a crime of moral turpitude, the Board *shall order* the revocation of a license. Under this repeal and amendment, the grounds for discipline set forth in HO §14-504(6) remain the same, but the Board's discretion as to sanction is removed. Because the conviction or plea herein occurred prior to the effective date of the Act, the charge is issued under former HO §14-504(6), giving the Board discretion as to any sanction.

Willfully makes or files a false report or record in the practice of medicine; [HO §14-504(12) of the Act]
Willfully submits false statements to collect fees for which services are not provided; [HO §14-504(25) of the Act[2]];

A hearing was scheduled before a Hearing Officer pursuant to HO §14-505 and commenced on February 9, 1989. Prior to the hearing, the State withdrew the charge of HO §14-504(22) and the grounds for discipline under that section, i.e, HO §14-504(3), (12), and (25). Consequently, the hearing was only on the charge of HO §14-504(6). Present at the hearing were the Hearing Officer; Debra G. Woodruff, Assistant Attorney General, Administrative Prosecutor for the Board; Louis A. Becker, Esquire, and William Cookson, Esquire, Attorneys for the Respondent; Respondent; Respondent's witnesses and the Court Stenographer. Mr. Becker moved for the dismissal of the charge of Ho §14-504(6) on the basis that the Criminal court had, by its entering probation before judgment in the Respondent's criminal case, *de facto*, overturned Respondent's plea of guilty. Respondent argued that if the plea of guilty was overturned then Respondent would be entitled to the benefits provided such a Respondent under HO §14-509 of the Maryland Medical Practice Act. The Administrative Prosecutor moved for a continuance to brief the issue. A continuance was granted until March 7, 1989 at 9 a.m., at which time the same persons reconvened at the same place except that the Court Stenographer was unavailable because of weather conditions. A sound recording was made of the proceedings and was preserved. The Hearing Officer denied Respondent's Motion to Dismiss. The hearing was held.

Summary of Evidence

Admitted into evidence by the State without objection by the Respondent were State Exhibits 1-7.

No witnesses testified on behalf of the State.

Admitted into evidence by Respondent without objection by the Administrative Prosecutor were Respondents' Exhibits 1-39.

Respondent's Exhibit 37, copies of eighteen (18) Medicaid fraud cases disposed of by the Commission on Medical Discipline was rejected by the Hearing Officer upon objection by the Administrative Prosecutor to their relevance to the present proceeding.

On March 15, 1989 the Hearing Officer submitted proposed Findings of Fact, Conclusions of Law and Recommendation ("Recommended Decision") to Respondent and the State. Pursuant to State Government Article, §10-212, the parties were advised of their rights to file exceptions and make oral argument on the exceptions to the Board.

On April 7, 1989 the State filed exceptions to the Recommended Decision. On August 9, 1989 Respondent filed exceptions to the Proposed Decision and a Response to the State's exceptions. An exceptions hearing was scheduled before the Board on Wednesday, August 16, 1989. Respondent and her husband were present as were her attorneys. The State was represented by Debra G. Woodruff, Assistant Attorney General, Administrative Prosecutor.

Respondent, without objection from the State, presented to the Board the following documents, which were accepted as part of the record:

Respondent Hearing Exception Exhibit 1 - Letter from Stanley R. Platman MD, chair, the Medical and Chirurgical Faculty Physician Rehabilitation Committee, To Whom It May Concern.
Respondent Hearing Exception Exhibit 2 - Letter from Alix C. Rey MD to Edward J. Kitlowski MD, Chair of the Committee.
Respondent Hearing Exception Exhibit 3 - Transcript of the June 24, 1988 Sentencing Hearing in *State of Maryland v. Waheeda S. Qaiyumi*.
Respondent Hearing Exception Exhibit 4 - Transcript of the July 20, 1988 hearing of Defendant's Motion to Revise Judgment in *State of Maryland v. Waheeda S. Qaiyumi*. (This exhibit was also marked Respondent's Exhibit 43 but not included in the Hearing Officer's list of exhibits. The Hearing Officer has no record of this being introduced in the hearing).

The State introduced page 10 of its exceptions that inadvertently had been deleted from the Board's agenda package. The Board considered the Proposed Decision, the parties' exceptions, the Respondent's exception exhibits, and the parties' oral argument.

A quorum of the Board considered the parties' exceptions and heard oral argument. A majority of the full authorized membership voted to adopt a proposed order.

On September 11, 1989 the Board forwarded its proposed decision to the State and Respondent. The Board offered the parties another opportunity to file exceptions since some of the Board's proposed findings differed from the Hearing Officer's and the Board's proposed sanction was harsher than the one to which the parties had previously excepted.

On September 22, 1989 Respondent filed exceptions with the Board. The State filed no exceptions. Argument was held and scheduled before the Board on Wednesday, October 25, 1989.

Findings of Fact

Based on the testimony and the exhibits introduced at the hearing before the Hearing Officer, all the filed exceptions, the exceptions hearing exhibits and both oral arguments, the Board, by a majority of the full authorized Board hearing this case and by clear and convincing evidence, finds that:

Finding of Fact I. Respondent *pleaded guilty* to a crime of moral turpitude. Medicaid fraud is a crime of moral turpitude and Respondent's plea of guilty was not overturned at any stage of an appeal or postconviction proceedings.

2. These charges are cited under the Act prior to amendment. The present parallel cites are HO §14-506(22) = HO §14-504(a)(21); HO §14-504(3) = HO §14-504(a)(3); HO §14-504(12) = HO §14-504(a)(11) and HO §14-504(25) = HO §14-504(a)(24).

Finding of Fact II. The Respondent did, in fact, plead guilty to Medicaid fraud as demonstrated by State Exhibits 1 through 6 provided to the Hearing Officer, without objection by the Respondent, during the hearing and provided to the Board herewith. A criminal information was filed against the Respondent on June 23, 1988. The Respondent entered into a Plea Agreement and the case was heard on June 24, 1988. No evidence to the contrary having been presented, the record is more than sufficient by clear and convincing evidence, that the Respondent did plead guilty to Medicaid fraud, a crime of moral turpitude as alleged in the Board's Charging Document.

Facts as to the Board's Sanction

These facts support the Board's Conclusion of Law.

Finding of Fact III. The charges to which Respondent pled guilty were:

> ... from on or about January 1, 1985 through on or about December 31, 1987, did knowingly and willfully make and cause to be made a series of false statements and false representations of material fact in applications for payment submitted to the Medical Assistance Program ... in that WAHEEDA S. QAIYUMI knowingly submitted applications requesting payment for services which were not performed .... (*See* State Exhibit 1*).*

Finding of Fact IV. Respondent was sentenced to one year incarceration, all but 21 days suspended, a fine of $10,000 and to pay restitution to Blue Cross/Blue Shield in the amount of $9,500 as well as $77,540.50 to the Department of Health and Mental Hygiene Medical Assistance Program.

Finding of Fact V. Respondent was at all times relevant a Medicaid physician provider with offices located at 9650 Santiago Rd., Suite 110, Columbia, MD 21045. She specializes in providing pediatric services to persons, including Medicaid recipients, living in Columbia, Maryland area.

Finding of Fact VI. The Maryland Medical Assistance Program is a State plan established pursuant to Title XIX of the Social Security Act of 1939 and is commonly referred to as "Medicaid." Its purpose is, among other things, to provide physicians and pediatric services for indigent Maryland citizens.

The Medicaid Program in Maryland is administered by the Department of Health and Mental Hygiene located at 300 West Preston St. in the City of Baltimore, Maryland.

Medicaid providers are required to submit accurate invoices for the services they to Medicare recipients to the Department of Health and Mental Hygiene of Baltimore City. The Department relies on the information contained in the invoices in determining the correct amount of benefits to be paid to the Medicaid provider. For each invoice submitted, the provider certifies that the billed service was medically necessary and was provided to the recipient.

Finding of Fact VII. From January 1, 1985 through and including December 31, 1987, the Respondent submitted applications for Medicaid benefits to the Department of Health and Mental Hygiene in Baltimore City, for an undetermined amount of throat cultures allegedly performed for Medicaid recipients. The Defendant personally prepared and signed each invoice submitted to the Department of Health and Mental Hygiene certifying that the throat culture was medically necessary and was provided to the Medicaid recipient.

Finding of Fact VIII. During that same time period, the Respondent billed Blue Cross and Blue Shield as primary insurer or as Medicare intermediary for an undetermined amount of throat cultures.

Finding of Fact IX. Respondent confessed that she had billed Medicaid Assistance for cultures that were not in fact performed.

Finding of Fact X. Respondent admitted that some unperformed throat cultures should have not been billed to Medical Assistance.

Finding of Fact XI. Respondent overbilled Medical Assistance for urine cultures. Respondent billed Medical Assistance for urine cultures totalling ten thousand, nine hundred ninety-one dollars and fifty cents during the period January 1, 1985 through December 31, 1987.

Finding of Fact XII. The records produced by Respondent for the years in question for Medical Assistance patients contained false statements that she had performed throat cultures that were returned negative.

Finding of Fact XIII. The Respondent is of Indian extraction and is quiet, introverted, and submissive. She practices in the environs of Columbia, MD. Respondent and Dr. Chowdhry testified that practitioners in that location reject Medicaid and Medicare patients. The Respondent has regularly accepted them and members of various ethnic groups who are more comfortable with her than with other physicians. Some of the patients had no insurance and no money. Others had Medicaid and Medicare, but because of the Respondent's own unfamiliarity with the paperwork required, she was often unreimbursed. This was often a subject of frustration for her. The paperwork for reimbursement would frequently be returned marked "Improper Code" or for other reasons. The Respondent noted that certain applications for reimbursement were never returned, and reimbursement was had. These were cases which involved throat swabs, urine testing and several other minor procedures. The Respondent began to bill Medicaid and Medicare using the codes for these simple procedures in order to be reimbursed somewhat for her efforts. She did this, even in cases involving lengthy treatment, where she could have been reimbursed many times the amount she was actually reimbursed because she coded the requests for reimbursement with the codes for lesser procedures.[3] Respondent admits freely to her actions and has been convicted for them. However, Judge Angeletti was merciful in his treatment of her in recog-

nition of her value as a physician, the massive debt to society she has paid, and the tragedy and trauma to her family.

Finding of Fact XIV. Respondent stated that she frequently billed throat cultures to Medical Assistance in order to get more money to cover her increasing malpractice insurance premiums.

Finding of Fact XV. There is no evidence in the record as to whether Respondent's practice is competent or not competent or that she practices good or bad medicine.

Finding of Fact XVI. Respondent has continued to practice medicine since her conviction and no evidence was presented of any failure on her part to comply with the law or practice competently. Respondent attempted to commit suicide. Respondent is in treatment and her treating therapists state that she is successfully progressing in treatment.

Finding of Fact XVII. The Respondent is practicing medicine and accepts all who come, although that number has been reduced to five to seven patients per day. She takes all patients whether they are able to pay or not. If they have medicaid and Medicare, she is barred from billing on those cases for a period of five (5) years.

Finding of Fact XVIII. Respondent is not appealing these disbarments from Medicaid and Medicare.

Finding of Fact XIX. Respondent can and does bill private insurance companies.

Finding of Fact XX. There is no evidence that Respondent is presently fraudulently billing private insurance companies.

Conclusions of Law

Based on the foregoing Findings of Fact by clear and convincing evidence, by a vote of a majority of its full authorized membership, the Board concludes as a matter of law that Respondent pleaded guilty with respect to a crime involving moral turpitude whether or not any appeal or other proceeding is pending; and that Respondent's plea of guilty was not overturned at any stage of an appeal or postconviction proceeding (HO §14-504(6)).

Order

Based on the foregoing Findings of Fact and Conclusions of Law, by a vote of a majority of its full authorized membership, it is this 6th day of November 1989

ORDERED that Respondent's Motion to Dismiss be DENIED; and be it further

ORDERED that the Board's charges under HO §14-504(22) are DISMISSED together with underlying charges HO §14-504(3), (12), and (25) insofar as Respondent was NOT convicted by a court of any state or country for an act that would be grounds for disciplinary action under this section; and be it further

ORDERED that Respondent's license is REVOKED, effective November 27, 1989, and be it further

ORDERED that on or after October 1, 1990 Respondent may petition the Board for reinstatement of Respondent's license; and be it further

ORDERED that in no event will Respondent's license be reinstated before November 27, 1990; and be it further

ORDERED that in the event Respondent petitions for reinstatement of her license, Respondent must, at minimum, submit evidence of compliance of continuing education requirements together with evidence of having taken 50 hours of continuing education in medical billing practices; and be it further

ORDERED that Respondent bears the burden of proving that Respondent should be granted reinstatement of her license; and be it further

ORDERED that between November 8, 1989 and November 27, 1989, Respondent must notify her patients that she will cease being their treating physician and said notification must, at minimum, include the following:

a. the identity of any physician to whom the Respondent's practice will be referred;

b. an explanation that the patients are free to choose another physician and the telephone number of the Medical and Chirurgical Faculty whom the patients can call for such a referral;

c. state in detail in order to comply with §4-305, State Government Article, what arrangements Respondent will make with regard to the patient's medical records; and be it further

ORDERED that this is a final order.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

Comment

Medicaid fraud is one of the most serious violations of the Medical Practice Act that this Board is called on to adjudicate. Physicians' billings for professional services, whether to the state or federal governments or to private insurers, are done primarily on an honor system. Payors are overwhelmed by the volume and complexity of the billing process, and audit capability is limited. Society and the medical profession itself have a right to expect physician behavior in assigning money values to medical services to be scrupulously honest and accurate. Conscious and deliberate fraud in billing contributes to an increasing distrust of doctors and is an offense against the honor and trust the great majority of physicians deserve.

3. This finding incorporates the Hearing Officer's statements in proposed Finding of Fact No. 5 which he found Respondent credible to how her practice of fraudulent billing commenced. "After carefully questioning the Respondent on all aspects of the facts of this case, I am convinced by the clear and convincing evidence available to me that the Respondent was at all times candid with me about billing for lesser procedures than she was actually entitled to bill for because of the administrative problems involved."

In particular, fraud in the Medicaid system is especially censurable. This program is desperately underfunded and every misused dollar contributes to the problem of providing care to the indigent in Maryland. Frustration with perceived complexities and inequities of the Medicaid payment system is no excuse for physicians devising their own rules for dealing with it. In this case, the physician not only admittedly defrauded the government but also falsified patient records. All health professionals must rely on the accuracy of medical records. This is an egregious case.

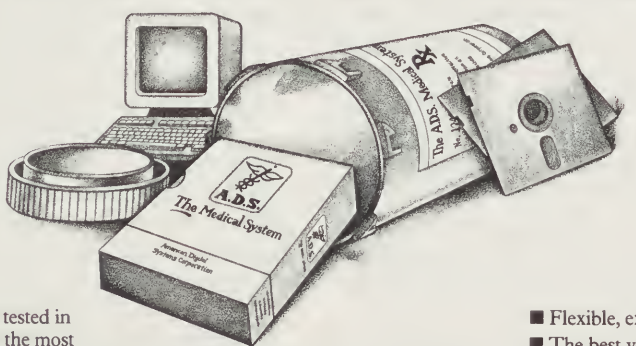
The Legislature, speaking for the citizens of Maryland, has clearly articulated a policy for the Board to follow in these cases. The Board has chosen to use its discretionary powers and revoke Respondent's license.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance ■

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Commentary
The Year of the Infant

At a media event held in Hunt Valley in January, Governor William Donald Schaefer announced 1990 to be The Year of the Infant. What unmet needs do they have? How serious are the problems besetting our most important resource in Maryland and in the nation - our children?

The American Academy of Pediatrics at the national level and the Maryland Chapter within our state firmly believe there is ample evidence documenting the failure of our political system to deal with our children's problems. The neonatal mortality rate, the adolescent pregnancy rate, the drug problem, and the evidence of the failure of the school system to adequately educate our children speak to these unmet needs. The Children's Defense Fund State Fact Sheet 1990, "How Maryland Treats Its Children," states that of twenty measures of children's needs, Maryland is adequate in only six. Our state is *not* making adequate progress in early prenatal care, infant mortality, and children in poverty.

An effort is being made to confront these problems. Politically, the establishment of a subcabinet position of Secretary of Infants, Children, and Families follows a recommendation of the American Academy of Pediatrics that each state establish such a department in order that the problems of our children can be coordinated between the Departments of Health and Mental Hygiene, Education, and Social Service and the private sector. The appointment of Dr. Nancy Grasmick, an educator, to this important post increases the likelihood of dealing with these problems in a comprehensive manner.

Though State funding for new programs is difficult at this time, it is also difficult to understand why previous excellent programs have not been maintained through the years. Due to progressive lack of funding, many school districts that had excellent psychological and counseling services have seen such programs wither. The number of school failures remains fairly constant. With fewer psychologists available to adequately test the children, there is less ability to write an educational prescription for each individual child in need. Laws have been written at the federal level to mandate these services, yet services remain unmet or have become scarce in many areas of our state. P.L. 99-457 was passed by Congress and amended as P.L. 94-142, The Education of the Handicapped Act, by adding Part H, a discretionary formula grant program for infants and toddlers with handicaps. Part H provides a five-year phase-in period for states in planning, developing and implementing a statewide comprehensive coordinated system of early intervention services.

Congress recognized that infants and toddlers and their families require comprehensive services unlikely to be fully available through any one state, public, or private agency. As part of the implementation of the program, the Interagency Coordinating Council was appointed by Governor Schaefer to assist and advise the State in planning. All of the state agencies, as well as private providers, parents, personnel trainers, and medical practitioners are participating on the Council. The Maryland State Department of Education is the designated Lead Agency responsible for planning and administering the program. This law specifically notes that private healthcare delivery must be included at all levels of this law. To date, little involvement of physicians in private practice has occurred. Further efforts must be made in this regard.

The American Academy of Pediatrics has made access for children to health care its number one priority. The Maryland Chapter has followed the American Academy and is introducing legislation this year in Maryland's Legislature to mandate wellness care for children. The proposed legislation would insure that any family that has health insurance within Maryland would have immunizations and anticipatory guidance, together with complete physical examination, medical history, and developmental assessment included. These services would be provided according to the schedule recommended by the American Academy of Pediatrics. The proposal would provide equity for children and insure them for their greatest needs: preventive medicine. The cost of such a program has been estimated to be $2.87 per month per family in 1988 dollars by the Actuarial Research Corporation of Annandale, VA. As an active participant in the Governor's Commission on Health Care and Financing (The Feinblatt Commission), The Subcommittee on Mandated Benefits clearly recognized the need for preventive health services for children. The final report of the committee, including a subsection regarding this subject, passed without dissenting vote.

This proposed legislation, however, does not affect the many uninsured children within Maryland. Appropriate legislation must be introduced and passed to cover the approximate 100,000 children who either are not covered by Medicaid and whose income of the family is less than 200 to 250 percent of the federal poverty level or are insured but do not have preventive health services included in their insurance. At several meetings of the pediatricians representing the State of Maryland and the Feinblatt Commission staff, these issues were discussed, and though the final report of the Commission is not yet available, it is hoped that some solution to access to healthcare for these children will be forthcoming.

The American Academy of Pediatrics has a different approach to this problem. They believe all children should have access to healthcare throughout the country, and there should be no significant differences in availability from one state to another. They, there-

fore, are proposing national health insurance for children. This national health insurance system would be pluralistic, allow free choice of physicians by the patient, and would use all current Medicaid funding to help fund this insurance program. An additional expenditure of approximately $24 billion would be needed.

In addition, Governor Schaefer has appointed a Commission on Adolescent Pregnancy that is now throughout the state. Plans are also being developed by Dr. Grasmick and the Office of Children, Youth, and Families to meet the pressing needs of children. We believe that her enthusiasm, dedication, and ability will provide the leadership that allows Maryland to meet the problems of children and celebrate The Year of the Infant by increased services to children.

ROBERT D. BRODELL MD, FAAP

Dr. Brodell is President of the Maryland Chapter of the American Academy of Pediatrics.

Speak Out on Consultation

Consultation, a radio program sponsored by the Medical and Chirurgical Faculty of Maryland allows Med Chi physicians to appear each week on the program to discuss the latest developments in medicine and to answer questions about health issues. Med Chi currently airs two sessions of Consultation:

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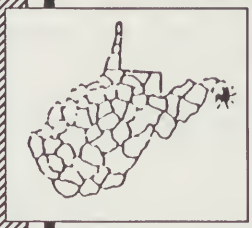
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Wayne B. Leadbetter MD was elected to fellowship of the American College of Surgeons at the 1989 Annual Clinical Congress of Surgeons. Recently Dr. Leadbetter was an invited speaker at the First International Olympic Committee World Congress on Sports Medicine in Colorado Springs, where he spoke on the "Use and Abuse of Corticosteroids in Sports Medicine" and the "Inflammatory Processes in Overuse Tendon Injury."

■ ■ ■

Robert G. Lisk MD was re-elected Chairman of Public Education for the American Academy of Otolaryngic Allergy at its recent national meeting. Dr. Lisk also serves as a member of the Academy's Executive Council.

■ ■ ■

Dan K. Morhaim MD, Owings Mills, recently was appointed to Governor William Donald Schaefer's Advisory Committee on Recycling. He will serve a three-year term which began in November 1989. Dr. Morhaim is the Chairman of the Department of Emergency Medicine at Franklin Square Hospital Center.

■ ■ ■

Barry S. Tatar MD was given special recognition as a Fellow at the recent national meeting of the American Academy of Otolaryngic Allergy.

■ ■ ■

R. Lane Wroth MD was named the first recipient of the Medical Director Leadership Award at the recent American Managed Care and Review Association (AMCRA) Annual Conference and Exhibition. Dr. Wroth is medical director of the Delmarva Health Care Plan in Easton, MD. The annual award recognizes a managed care medical director who demonstrates exemplary performance of AMCRA's mission and is funded by an educational grant from Marion Laboratories, Inc. Dr. Wroth was selected by the Executive Committee of AMCRA's board of directors from nominations submitted by member plans. An active AMCRA member, he is chairman of the association's medical issues section and serves on the AMCRA board of directors.

■ ■ ■

Maryland Society of Cardiology


Raymond D. Bahr MD

In November the Society elected the following officers: President *Raymond D. Bahr MD*, Secretary-Treasurer *Dean Taylor MD*. The immediate Past-President is *Kenneth B. Lewis MD*, and the Executive Board members are *Mark Applefeld MD, Donald Dembo MD, Samuel Goldberg MD, John Hornbaker MD, and Carl Tommaso MD.*

The Maryland Society of Cardiology was begun in 1975 as an organization to promote high quality cardiologic care in the hospital, the physician's office, as well as in the community. It also provides a mechanism for peer review and expert opinions on subjects germane to cardiologic practice. It compliments and supplements the aims and activities of the Maryland Society of Internal Medicine, American College of Cardiology, American Heart Association, and the American College of Physicians.

The Society consists of 110 active members located throughout Maryland and meets annually in November with a formal lecture on a cardiology related subject. New cardiologists moving into the state or just beginning practice are encouraged to join. ■

Medicolegal Hotline for Any Emergency

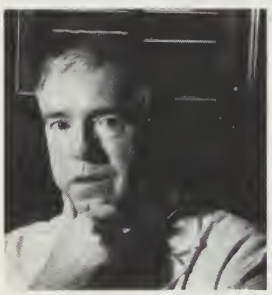
March	Raymond F. Caplan MD	301-653-0366
	Peter Engel, Esq	301-366-1710
April	J.D. Hills MD	301-889-2575
	Nancy Eileen Gregor Esq	301-752-6030

The Science of Medicine

Don't Deny Chest Pain—
The First Two Hours Are Vital!

Most of us are aware of such primary risk factors in heart attacks as elevated cholesterol, smoking and high blood pressure. Many of us are unaware of the risk of ignoring the early warning signs of chest pain. Denial and delay cause severe damage to vital heart muscles, prevent full recovery and, in many instances, cause death.

Nearly 70% of those suffering a heart attack die within the first two hours. Prompt attention to warnings, combined with modern techniques and an array of drugs, can significantly reduce fatalities.



Raymond D. Bahr M.D. is the Director of the Paul Dudley White Coronary Care System and founder of the Chest Pain Emergency Center at St. Agnes Hospital, the first in the nation. Dr. Bahr has instituted programs of community education in the risks of ignoring chest pain. Programs are also available to business and industry. Action is most important at the stage of early intermittent chest discomfort or pain. When the pain becomes severe and undeniable, it's often too late to save life or the important heart muscles that would ensure full recovery and preserve a higher quality of life.

At the St. Agnes Chest Pain Emergency Center, patients are examined and treated immediately by trained physicians in emergency medicine, cardiology and a special nursing staff. There is no delay. After identification of the problem and stabilization, patients continue to be monitored in the Chest Pain Emergency Center, until they are transferred to the Hospital's Coronary Care Unit.

Early cardiac care is presently reaching its peak with the development of thrombolytic agents, angioplasty and early coronary bypass surgery. But all of these measures are most effective if the patient is aware of the necessity of prompt response at the early stages of chest discomfort or pain.



The Art of Caring

HEART ATTACKS– Recognize the Symptoms

Why Is It The Number One Killer Of Adults In The U.S.A.? Because when it is beginning, it is not recognized. If clues can be found at this stage, the entire field of cardiology can be changed to prevention of heart attacks rather than treating the heart attack and resultant heart damage. Beginning symptoms of a heart attack (prodromal) are milder and are described as pressure rather than pain. They occur in a stuttering way for hours to days before they become painful and constant. They are easily denied in the face of a busy schedule that is more demanding. Undivided attention by first responders can help to get these patients into early cardiac care centers in emergency rooms more quickly. Here the patient's symptoms can be checked out and cardioprotection given if necessary. The nation has 6700 community hospitals. It needs such an approach because the heart of the problem is within these communities.

Get the right signal for you and your family. Be safe at home. Learn how to act when it counts. A free speaker's bureau is available in Maryland and surrounding states. Call **(301) 368-3217,** or write Dr. Raymond D. Bahr, St. Agnes Hospital, 900 Caton Avenue, Baltimore, MD 21229.

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March 9-10

Third Symposium on Urologic Cancer, Harbor Court Hotel, Baltimore. Fee: $175; 11 AMA Cat I credits.

March 10

The Diagnosis and Management of Acute Myocardial Infarction, half-day program, Harbor Court Hotel, Baltimore. Fee: $45; 4 AMA, AAFP, ACEP credits.

March 18-20

Twelfth National Trauma Symposium: Cross Roads in Trauma Care...Paving the Way to the 21st Century, Baltimore Convention Center. Info: K. Unitas or T. Young 301-328-2399 or FAX 301-328-8514.

March 22

Dean's Conference #6: New Approaches in the Care of the Elderly, UMAB Campus, Baltimore. Fee: $35; 5.5 AMA & AAFP credits.

April 26

Dean's Conference #7: Advances in Endocrinology, UMAB Campus, Baltimore. Fee: $35; 5.5 AMA & AAFP credits.

April 27

A Workshop Symposium in Effective Therapy, UMAB Campus. Fees and credits to be determined.

June 14-17

Third Annual Trauma Anesthesia and Critical Care Symposium. Pre-symposium workshops on ATLS, ACLS, ABLS, APLS, and CRNAs also will be held. Info: MIEMSS Office of International Development, 11 S. Paca St., Ste 303, Baltimore, MD 21201 (301-328-2399).

June 24-29

Sixteenth Annual Family Medicine Review Course, Carousel Hotel, Ocean City, MD. Fee: $395; 20+ AMA and AAFP credits.

June 28-29

Ninth Annual Update in Obstetrics and Gynecology, Annapolis. Fee: $200; 14 AMA credits and ACOG cognates.

Continuously Throughout the Year

Visiting Professor Program - Directory of speakers and topics available for area hospitals and other health care organizations. No administrative fee. Info: 301-328-3956.

Visiting Practitioner Preceptorships - Opportunity for physicians to participate in clinical situations in the University of Maryland Medical Systems. Requires approval from clinical department/division heads. Hour-for-hour Cat I credits available. Direct all inquiries to CME 301-328-3956.

Departmental Rounds and Conferences - Weekly, hands-on and lecture presentation hosted by the University's clinical departments. Hour-for-hour AMA Cat I credits available. Brochure available.

Advanced Trauma Life Support Provider/Instructor Programs sponsored by University of Maryland/MIEMSS. Info: M. Nelson 301-328-2919.

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May 17-18 Provider
July 19-20 Provider
August 16-17 Provider
September 12-14 Instructor
October 18-19 Provider
November 15-16 Provider
December 6-7 Provider

MISCELLANEOUS MEETINGS

March 4-9 — **Seventeenth Annual Critical Care Medicine Course**, Holiday Inn Airport West, Oklahoma City, Oklahoma. Fee: $600; house staff $500 (with letter from director of training program); physician assistants and registered nurses welcome to register. Accredited by AMA, AAFP, AOA, ACEP. Info: Critical Care Medicine Course, Univ of Oklahoma Health Sciences Center, Rm 3 SP 400, PO Box 26901, Oklahoma City, OK 73190.

March 19-21 — **NIH Consensus Development Conference: Surgery for Epilepsy**, Masur Auditorium, Warren Grant Magnuson Clinical Center, NIH, Bethesda. Info: Conference Registrar 301-468-MEET.

March 23-24 — **The Environmental and Health Legacies of Nuclear Weapons Production**, Denver, CO, sponsored by Physicians for Social Responsibility. Info: PSR, 1000 16th St NW, #810, Washington, DC 20036 (202-785-3777).

April 19-21 — **Annual Meeting, The Virginia Society of Otolaryngology-HNS**, Radisson Mark Plaza Hotel, Alexandria, VA. Info: D. Scott 804-353-2721.

May 2-4 — **Cardiovascular Health Styles: Energizing for the 90s**. The Seventh Regions II and III Cardiovascular Risk Reduction Conference, Hershey Hotel, Philadelphia, PA. Info: D. Fedder DrPH 301-328-7613, FAX 301-328-7184; R. Ranberg 717-787-7073.

May 2-5 — **American Trauma Society Seventeenth Annual Meeting**, Holiday Inn Crowne Plaza, Washington, DC. Info: Meeting Coordinator American Trauma Society, 1400 Mercantile Lane - Ste 188, Landover, MD 20785 (800-556-7890 or 301-925-8811).

May 9-11 — **Clinical Auscultation of the Heart**, Georgetown University Medical Center, Washington, DC, sponsored by the American College of Cardiology and the Division of Cardiology, Department of Medicine, Georgetown University School of Medicine. Info: Registration Secretary, Extramural Program Dept, American College of Cardiology, 9111 Old Georgetown Rd., Bethesda, MD 20814 (800-253-4636 or 301-897-54090 ext 226).

June 22-24 — **Annual Meeting, The Virginia Society of Ophthalmology**, Omni International Hotel, Norfolk, VA. Info: D. Scott 804-353-2721.

Shady Grove Adventist Hospital, 9901 Medical Center Drive, Rockville, MD. Info: 301-279-6000.

March 1	**Update on Peptic Ulcer Disease**
March 8	**Anaphylaxis**
March 22	**Monoclonal Antibodies in Clinical Medicine**
March 29	**Sports Medicine in the Orient**
April 5	**Medical Care in Space**
April 12	**Echocardiography and Color Flow Doppler**
April 19	**Noncardiac Chest Pain**
April 26	**Advances in Gynecologic Surgery**

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March 19-21

Spectrum of Developmental Disabilities XII: Prematurity: Neurodevelopmental assessment and Intervention Issues. Fee: $395; 20 AMA Cat I credits. Info: J. Nutt 301-955-2959.

March 22-23

Symposium on Dysphagia III: Basic Concepts of Swallowing and Swallowing Disorders. Fee: $350 physicians, $175 residents and allied health professionals; AMA Cat I and other appropriate credits pending. Info: J. Ryan 301-955-2959.

March 29-30

Diagnosis and Treatment of Neoplastic Disorders: Medical, Surgical, and Radiotherapeutic Aspects. Fee: $250, $100 (Non-Maryland physicians-in-training); 14.5 AMA Cat I credits. Info: F. Boling 301-955-2959.

April 2-7

Seventeenth Annual Pediatric Trends. Fee: $550 physicians, $400 residents and fellows; 45 AMA Cat I and 45 PREP credits.l Info: F. Boling 301-955-2959.

May 14-18

Topics in Clinical Medicine. Fee: $650 physicians, $450 residents/PAs, and nurse practitioners; 40 AMA Cat I credits. Info: C. Kearney 301-955-2959.

June 4-15

Third Summer Institute in Environmental Health Studies. Subjects include Risk Assessment & Risk Management, Toxicology, Physiology, Occupational Health, Industrial Hygiene, Radiation Health Science, and Risk Communication. Academic or CEU credit. Info: J. Corn 301-955-2609.

Continuously Throughout the Year

Ophthalmic Electrophysiology Technician Training Course (on-going 1-week course by appointment). The Wilmer Eye Institute, Baltimore. Info: C. Kearney.

The Department of Radiology and Radiological Sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams 301-955-3169.

Visiting Physicians - offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. Fee: $500; 40 AMA Cat I credits.

Johns Hopkins Medical Grand Rounds - Accredited audiovisual continuing education series of case discussion for clinicians; 30 topics/year in 5 bimonthly programs. Individual and group subscriptions; 40 AMA Cat I credits. Info: 301-955-3988.

Microsurgery Training at The Johns Hopkins Hospital, one week, offered continuously throughout the year. 40 AMA Cat I credits. Info: P. Williams 301-955-3169. ■

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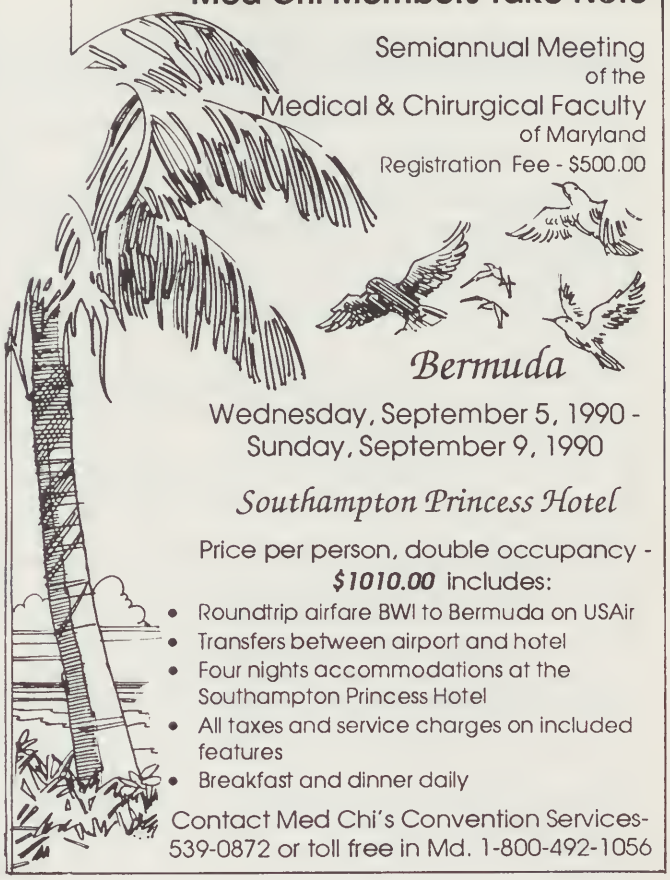
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The Resound has the ability to compensate for the distortion of sound recruitment common to regular hearing aid users. The Resound adjusts the intensity for each frequency to fit into the individuals comfortable hearing range. Thus, the distortion with high tones of speech, the loss of consonants and indistinctness of speech, the loss of directionality and the wind noise are practically eliminated with the Resound. The programming of the device is done by Dr. Kathryn Copmann, Ph.D. audiologist and the evaluation and implantation is done surgically by Otolaryngologist Lewis B. Newberg, M.D.

To date the patients that have been seen and operated on are all quite satisfied with the quality of sound; and cosmetically were quite surprised and pleased.

In addition to being able to offer the Resound Hearing device, a number of additional services are available including transtympanic and operative electrocochleography for Menieres disease and Audiant bone conduction hearing devices and cochlear implants. A full range of rehabilitative ancillary support are available for those who diagnostically qualify for these procedures.

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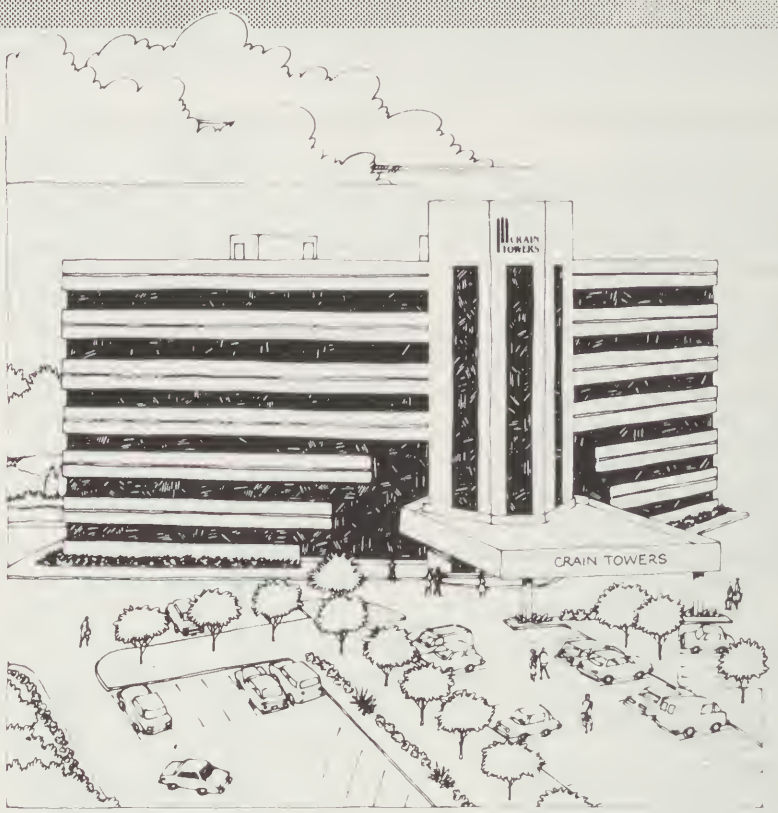
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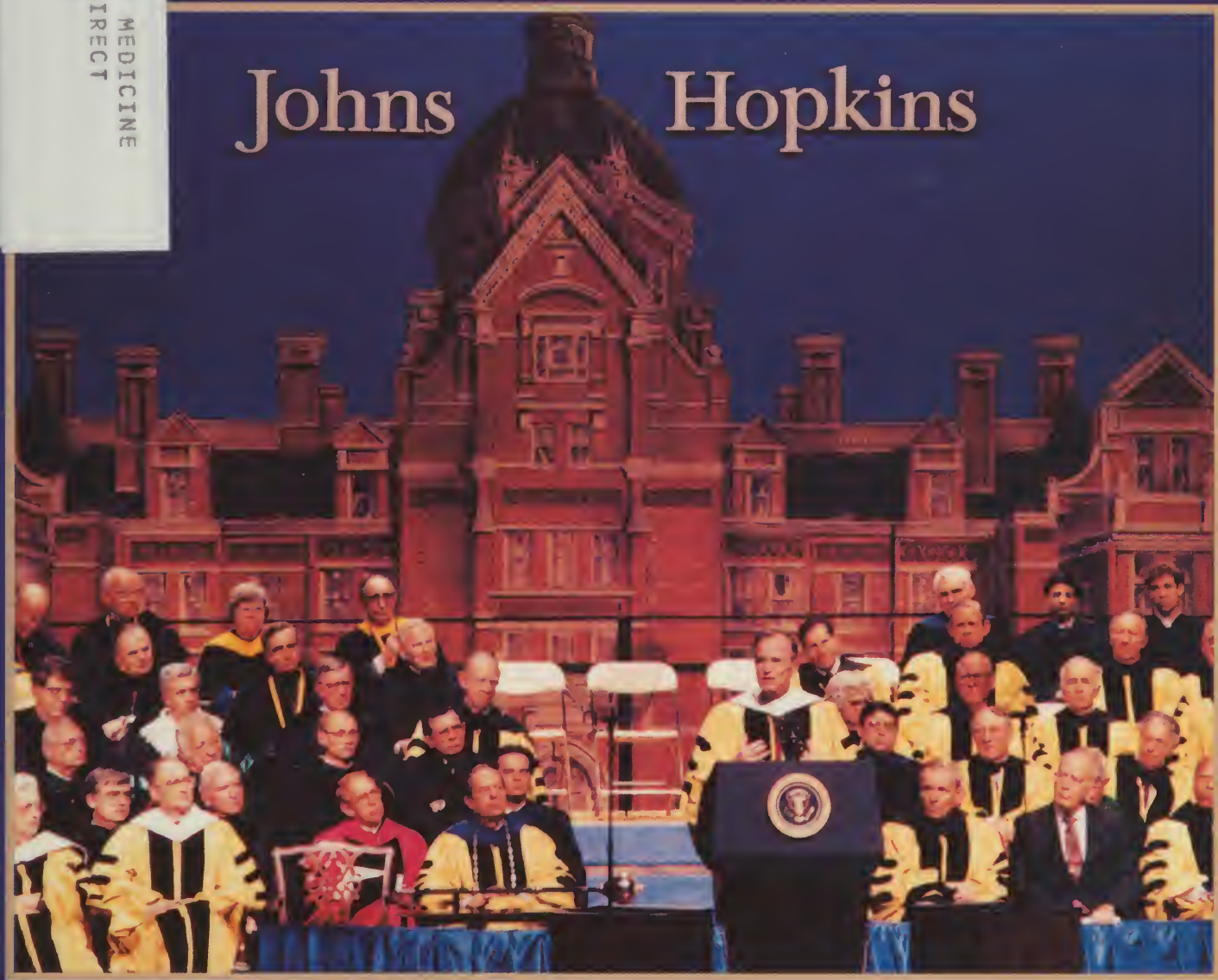
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In celebration of the centennial of Johns Hopkins medicine, President George Bush delivered an address and received an honorary Doctor of Humane Letters degree from The Johns Hopkins University. The citation accompanying the President's honorary degree takes special recognition of the commitment he has expressed to the advancement of education and health care.

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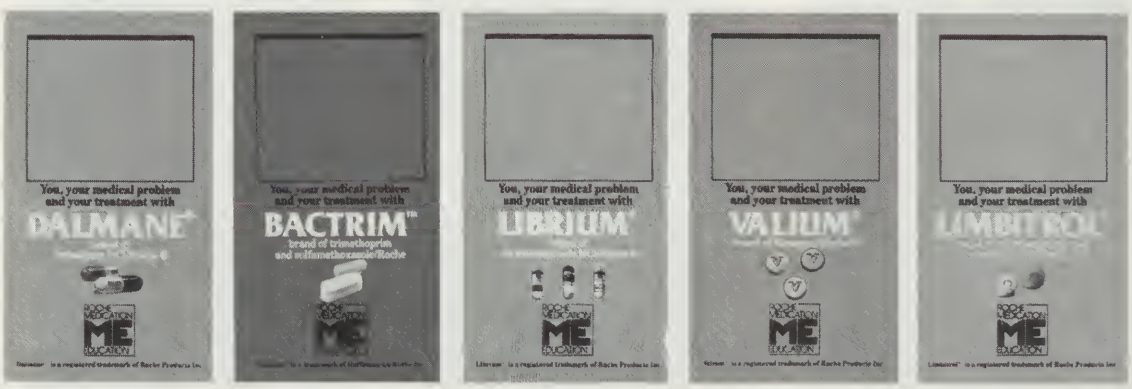
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APRIL 1990
RABIES IN MARYLAND

Rabies cases have increased during 1989 for the first time since the peak of 1,100 reported cases in 1984. The 389 cases of animals found positive by laboratory testing (see Table 1) represented a 51 (15.1%) case increase over the previous year. Further, 1989 was the first year that an additional county (Kent County) became affected since Cecil County in 1986.

Raccoon Epizootic

The current Maryland rabies epidemic in animals (or epizootic) is a part of the Mid-Atlantic epidemic which had its origins in the Eastern Panhandle of West Virginia in 1977. Maryland became involved in September of 1981 when rabies crossed the Potomac River into Allegany County. The current epidemic is maintained by Maryland's raccoon population. It has advanced about 25 miles per year, delayed only briefly by interstate highways and for a somewhat longer time by large rivers and mountain ridges. In a few localized instances, the advance or expansion was halted for extended periods of time for unknown reasons. Spillover from the raccoon accounts for rabies in other wildlife, the cat and the dog and other domestic animals, but there is no evidence that rabies is transmitted within these other populations. There have been no human deaths in this current epidemic.

Rabies Increase

Of the approximately 5,000 specimens tested, raccoons represented 295 of all positive animals and is a 15.6% increase over the number of cases in 1988. Cat rabies total 16 (+23.1%), fox - 23 (+9.5%), dog - 2 (vs 0), skunk - 19 (0.0%) and all other animals (4 groundhog, 3 equine, 1 sheep) - 8 (-11%). It must be kept in mind that the number of rabies positive animals does not reflect a prevalence (total cases at a point in time) but only the number of laboratory confirmed rabid animals. Similarly, the total number of animals tested is not a denominator (total population of susceptibles) in the usual sense, but rather the total of animals submitted for testing. These data which are used to reflect changes in reported rabies is a recognized convention since true prevalence (numerators) and true population totals (denominators) are not available. Because rabies is an acute, inevitably fatal disease, prevalence and incidence may be thought of as the same value.

Bat Rabies

Throughout this overlying raccoon rabies epidemic, bat rabies continued to be endemic throughout Maryland. The 26 rabid bats reported in 1989 was a 23.8% increase over the previous year but rabies in bats cycles independently in nature and is epidemiologically unrelated to rabies in terrestrial rabies (rabies in four-footed animals). The number of rabid bats has varied greatly from year to year over the past 20 years (minimum 3, maximum 51) . During the entire decade of the 1970's, only four terrestrial animal rabies cases were identified, while there was an average of 20.7 rabid bats per year. The most recent human rabies death in Maryland occurred

Table 1. Laboratory Confirmed Rabies Cases in Maryland

January 1 through December 31, 1989

Jurisdiction	Bat	Cat	Dog	Fox	Raccoon	Skunk	Other	Totals
Allegany	0	0	0	0	11	5	0	16
Anne Arundel	1	2	0	1	26	1	0	31
Balt. City	6	0	0	0	3	0	0	9
Baltimore	3	2	0	7	53	1	* 3	69
Calvert	0	0	0	0	8	0	0	8
Caroline	0	0	0	0	0	0	0	0
Carroll	1	3	1	1	11	0	0	17
Cecil	0	0	0	1	43	0	0	44
Charles	0	0	0	0	5	1	# 1	7
Dorchester	0	0	0	0	0	0	0	0
Frederick	5	2	0	2	28	6	@ 2	45
Garrett	0	0	0	0	7	0	0	7
Harford	0	1	1	2	23	0	0	27
Howard	2	1	0	1	16	0	# 1	21
Kent	0	0	0	0	2	0	0	2
Montgomery	5	1	0	3	15	2	0	26
Prince George's	1	1	0	4	26	0	0	32
Queen Anne's	0	0	0	0	0	0	0	0
St. Mary's	0	0	0	0	4	0	0	4
Somerset	0	0	0	0	0	0	0	0
Talbot	1	0	0	0	0	0	0	1
Washington	0	3	0	1	14	3	& 1	22
Wicomico	0	0	0	0	0	0	0	0
Worcester	1	0	0	0	0	0	0	1
Totals	**26**	**16**	**2**	**23**	**295**	**19**	**8**	**389**

* 1 equine, 2 groundhog; @ 2 equine; # groundhog; & sheep

in 1976 (Cecil County) as a result of a bat bite. (A previous death was in 1954 [Baltimore City] as a result of a dog bite.)

Public Health Strategy

Public health concern and involvement with animal rabies results from the fact that rabies in humans must be regarded as always fatal once signs of the disease are evident. Early detection of a case of human rabies is of no value and total prevention of rabies in humans is the only public health alternative. Supportive care has extended in recent years the period of illness but has not prevented death. Because rabies is a fatal disease, current recommendations for humans who are exposed to rabies require postexposure prophylaxis to be administered regardless of the individual's

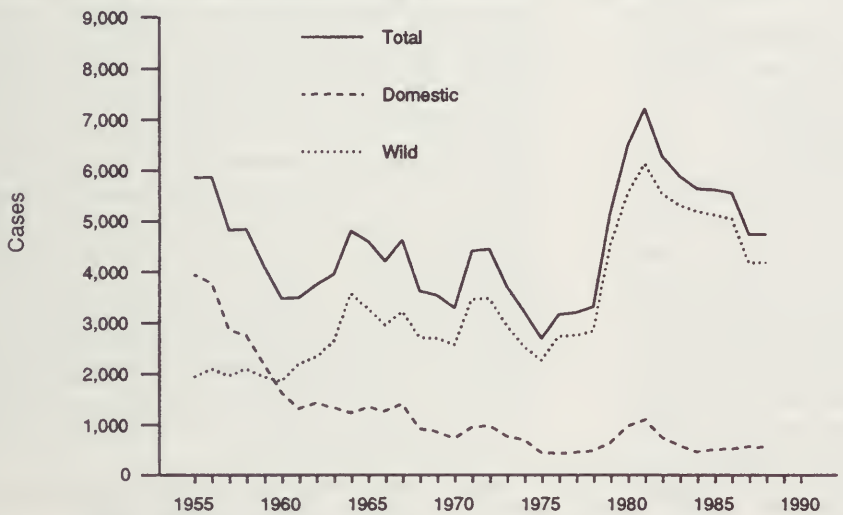
previous history of vaccination, although the regimen may be modified.

Typical of most diseases transmitted from animals to humans (the zoonoses) human-to-human transmission is rare or does not occur. The prevention of human rabies must concentrate upon the animals which may expose people and upon postexposure prophylaxis of exposed persons when indicated.

Rationale for Treatment

Each possible exposure must be evaluated individually. Local and State public health officials should be consulted if questions arise about the need for prophylaxis. In Maryland the following factors should be considered before specific antirabies treatment is begun:

FIGURE 1. Cases of rabies in animals, by year, United States, 1955-1988



*** Species of biting animal**

Carnivorous wild animals (especially the raccoon, fox, skunk and bat) represent the greatest risk. Unless an animal is tested negative, postexposure prophylaxis should be begun. If treatment has begun and subsequent laboratory testing shows the exposing animal is not rabid, treatment can be discontinued. Because the period of rabies virus shedding in infected wild and exotic animals is unknown, confinement and observation is not appropriate.

Confinement and observation of a healthy dog or cat and farm animals is a proven, appropriate procedure to rule out exposure to rabies. Groundhogs (46) and squirrels (5) have been found to be rabid in Maryland during this epidemic. Involvement of these rodents is probably the result of exposure to raccoons with which they shared burrows (groundhog) or tree holes (squirrels). Other rodents and rabbits are rarely found infected with rabies and have not been known to cause rabies in humans in the United States.

*** Circumstances of the biting incident**

An unprovoked attack is more likely than a provoked attack to indicate an animal is rabid. Bites which occur while attempting to feel, touch or handle an apparently healthy animal should generally be regarded as provoked.

*** Type of exposure**

Two categories of exposure should be considered. A bite is any penetration of the skin by teeth. A nonbite is contamination with saliva of scratches, abrasions, open wounds or mucous membranes. Casual contact, such as petting a rabid animal (without a bite or nonbite exposure) does not constitute an exposure and is not an indication for prophylaxis.

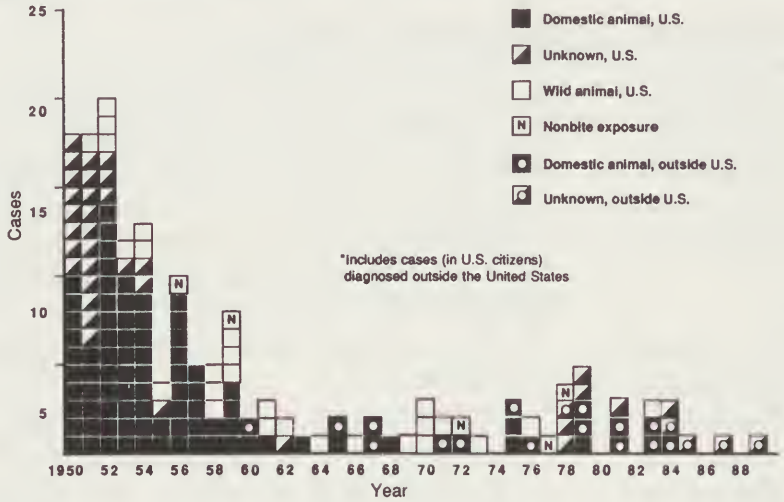
Principles of Control

The measures which are most valuable for human rabies prevention are:

1. Rabies vaccination of owned dogs and cats (to prevent the introduction of rabies into the home environment).

2. Alerting citizens to avoid wild animals and stray dogs and cats (The most uniform sign of rabies in any creature is a change in expected behavior), and

FIGURE 2. Cases of rabies in humans, by year and exposure category, United States*, 1950-1988



3. Prompt administration of postexposure prophylaxis to persons who are exposed to rabies (when required, postexposure treatment is safe and effective).

Other useful measures are licensing and restriction of household pets (leash laws) and the control of stray dogs and cats.

Fluorescent Antibody Test

Any animal which is capable of transmitting rabies will be found laboratory positive by the Fluorescent Antibody Test. This quick, reliable, highly sensitive and specific test for rabies is the standard test used in Maryland. It is not necessary and serves no useful purpose to delay laboratory testing of a domestic animal if circumstances of the bite or the health of the moribund animal as evaluated by a veterinarian do not justify waiting the 10-day confinement and observation period.

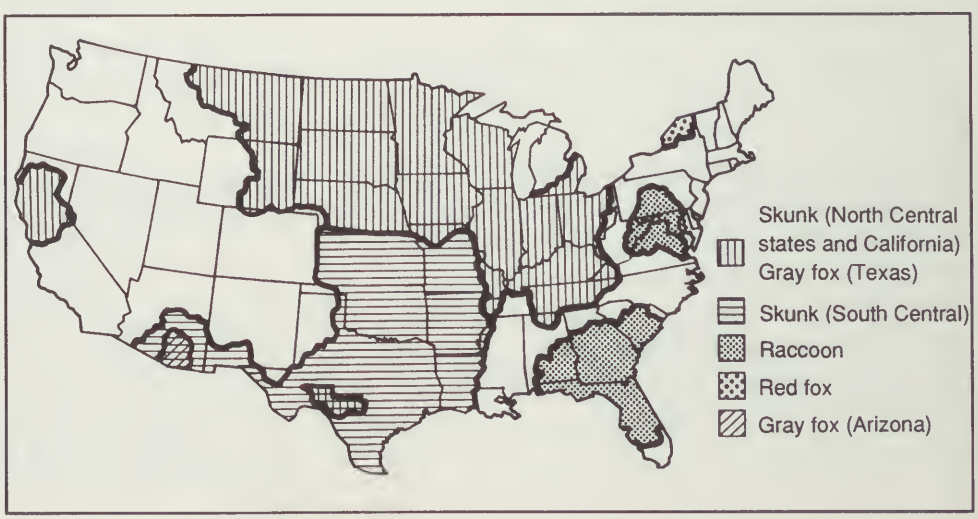
Rabies Trends in the US

Figure 1 shows that reported wildlife rabies increased greatly during the past decade while domestic animal rabies continued at a low level following a dramatic decline (mainly in dogs) beginning in the 1950's when effective canine rabies vaccine came into use.

The decline in human rabies cases in the United States (Figure 2) parallels the decline in exposure to rabid domestic animals. Most deaths recorded are the result of exposure outside the United States and are usually due to domestic animals.

Human (postexposure) and animal (preexposure) antirabies biologics protect against all antigenic types of rabies virus. Specific antigenic types of rabies virus have been associated with wildlife species in which the types are usually maintained (Figure 3). The Middle Atlantic and the South Atlantic regions with raccoon epizootics are the only regions where the raccoon type is found. Rabies virus found in bats is different from any of the terrestrial rabies virus types and is represented by a spectrum of characteristics rather than a single district or single antigenic type.

FIGURE 3. Distribution of five antigenically distinct rabies virus strains and the predominant wildlife species affected, contiguous United States, 1988



Systemic and Combined Modality Therapy for Lung Cancer

Lung cancer is both the most common malignancy and the leading cause of cancer-related death in the United States. It is estimated there will have been 155,000 new cases diagnosed in 1989 (3,000 in Maryland), with 142,000 lung cancer deaths (2,700 in Maryland) during that year. Tobacco smoking is responsible for 85 percent of male lung cancer cases and 75 percent of female cases. Lung cancer incidence and mortality rates continue to climb, particularly in women. Despite decreasing prevalence of smoking among adults, it will be many years before these behavioral changes affect incidence rates.

Four major types of lung cancer account for approximately 95 percent of lung tumors. Based on specific biologic properties of the cancer cells, lung cancers are classified as either small cell lung cancer (SCLC) or nonsmall cell lung cancer (NSCLC). SCLC has distinctive neuroendocrine properties and accounts for 20 to 25 percent of lung cancers; NSCLC account for 75 to 80 percent of lung cancers. The three major types of NSCLC are epidermoid carcinoma (Squamous cell), adenocarcinoma, and large cell undifferentiated carcinoma, and, while treated identically, they may have somewhat different clinical characteristics. It has been noted that the relative percentage of adenocarcinoma appears to be increasing.

At present, despite our increased understanding of the biology of lung cancer as well as advances in the treatment of the disease, only 13 percent of all lung cancer patients will survive 5 years. The reasons the majority of lung cancer patients are not cured are obvious: what is needed to improve survival is the development of more effective systemic agents (chemotherapy, biologic response modifiers) as well as the utilization of combined-modality therapy.

Nonsmall Cell Lung Cancer

The high failure rates associated with surgery and radiation therapy in NSCLC have led to the use of adjuvant as well as neoadjuvant therapy to eradicate micrometastatic disease and reduce local recurrences. The Lung Cancer Study Group (LCSG), in a randomized study involving stage II and III adenocarcinoma and large-cell undifferentiated carcinoma, demonstrated that patients receiving postoperative chemotherapy (cyclophosphamide, doxorubicin and cisplatin - CAP) monthly for 6 months had prolonged time to recurrence of disease and survival than patients receiving postoperative immunotherapy (intrapleural BCG and oral levamisole).[1] The LCSG also evaluated postoperative chemotherapy and radiotherapy in patients with resected lung cancer.[2] Patients were randomized to receive thoracic radiotherapy either alone or with chemotherapy (CAP). The patients who received both the thoracic radiotherapy and chemotherapy postoperatively had a prolongation of disease-free survival.

The use of preoperative chemotherapy with and without radiotherapy is gaining interest. Several nonrandomized studies suggest that such therapy causes unresectable disease to become resectable. Moreover, the therapy also may be effective in preventing local recurrences.

In patients with stage III disease, Cancer and Leukemia Group B (CALGB) compared radiation therapy (60 Gy in 6 weeks) versus sequential vinblastine and cisplatin followed by radiation therapy.[3] Median survival was significantly increased with the sequential chemoradiotherapy compared to the radiotherapy alone (16.5 months vs. 8.5 months). In an ongoing NCI high-priority study conducted by the Radiation Therapy Oncology Group (RTOG) and the Eastern Cooperative Oncology Group (ECOG), the two therapies mentioned above are being compared to twice-daily fractions (hyperfractionation) radiation therapy (total dose 69.8 Gy).

For recurrent or metastatic NSCLC, chemotherapy is used in selected patients. Although there is no chemotherapy that can be considered "standard" in NSCLC, cisplatin-containing regimens offer palliation to patients.[4] The response rates to most chemotherapeutic regimens are less than 40 to 50 percent and the responses are usually partial and of short duration. The development of new drugs to treat advanced NSCLC is needed. Presently, the Johns Hopkins Oncology Center is conducting a phase I study of Ipomeanol in patients with advanced lung cancer.[5] In preclinical studies this drug demonstrated significant activity against lung cancer. It remains to be seen whether the same activity will occur in patients with lung cancer.

Small-Cell Lung Cancer

SCLC is a rapidly growing tumor with a propensity for early dissemination to distant sites. Although responsive to both chemotherapy and radiation therapy, systemic chemotherapy is the cornerstone of therapy for SCLC. It should be noted, however, that the role of surgery in SCLC is presently being defined. The LCSG recently completed a study comparing radiation therapy to thoracic surgery and radiation therapy in patients with limited stage-SCLC who initially responded to chemotherapy. The results of the study are being analyzed. SCLC is usually divided into "limited" and "extensive" stages. In general, patients with limited disease have a median survival of 12 to 18 months with 10 to 20 percent alive and free of disease at two years; patients with extensive disease have a

median survival of 8 to 12 months with fewer than 5 percent having relapse-free survival at two years.

There are at least ten drugs that are active as single agents in the treatment of SCLC. With so many active drugs, many different effective combination chemotherapeutic regimens have been used to treat SCLC.

One of the most effective regimens used in the treatment of SCLC is etoposide and cisplatin. Not only has it been used alone in the treatment of extensive-stage SCLC, but also its use concomitantly with radiation therapy in patients with limited stage disease has increased their chance for a prolongation of disease-free survival. In a nonrandomized trial evaluating hyperfractionated radiation therapy combined with etoposide and cisplatin, the complete response rate was 93 percent with an actuarial survival of 54 percent at two years.[6] In an ongoing NCI high-priority study conducted by the RTOG and ECOG to evaluate the above regimen, patients with limited-stage SCLC are randomized to receive etoposide and cisplatin given concomitantly with either standard thoracic radiation therapy or hyperfractionated radiotherapy.

Lung cancer remains a major health problem in the United States. Despite advances being made in our understanding and treatment of lung cancer, more effective systemic therapies as well as combined modality approaches are needed to produce significant improvement in survival.

DAVID S. ETTINGER MD
Associate Professor of Oncology and Medicine
Director, Lung Cancer Program
The Johns Hopkins Oncology Center

References

1. Holmes EC, Gail M. Surgical adjuvant therapy for stage II and stage III adenocarcinoma and large cell undifferentiated carcinoma. The Lung Cancer Study Group. J Clin Oncol 1986;4:710-15.
2. Lad T, Rubinstein L, Sadeghi A. The benefit of adjuvant treatment for resected locally advanced non-small cell lung cancer. The Lung Cancer Study Group. J Clin Oncol 1988;6:9-17.
3. Dillamn RD, Seagren SL, Propert S et al. Protochemotherapy improves survival in regional nonsmall cell lung cancer (NSCLC). Proc Am Soc Clin Oncol 1988;7:195.
4. Ruckdeschel JC, Finkelstein DM, Ettinger DS et al. Randomized trial of the four most active regimens for metastatic non-small cell lung cancer. J Clin Oncol 1986;4:14-22.
5. Rowinsky EK, Ettinger DS, Noe DA et al. Phase I and pharmacologic study of 4-Ipomeanol in patients with lung cancer. Proc Am Soc Clin Oncol 1989;8:72.
6. Turrisi AT, Glover DJ, Mason B, Tester W. Concurrent twice-daily multi-field radiotherapy (2x/D XRT) and platinum-etoposide chemotherapy (P/E) for limited small cell lung cancer (SCLC): Update 1988 (abstract). Proc Am Soc Clin Oncol 1988;7:211. ■


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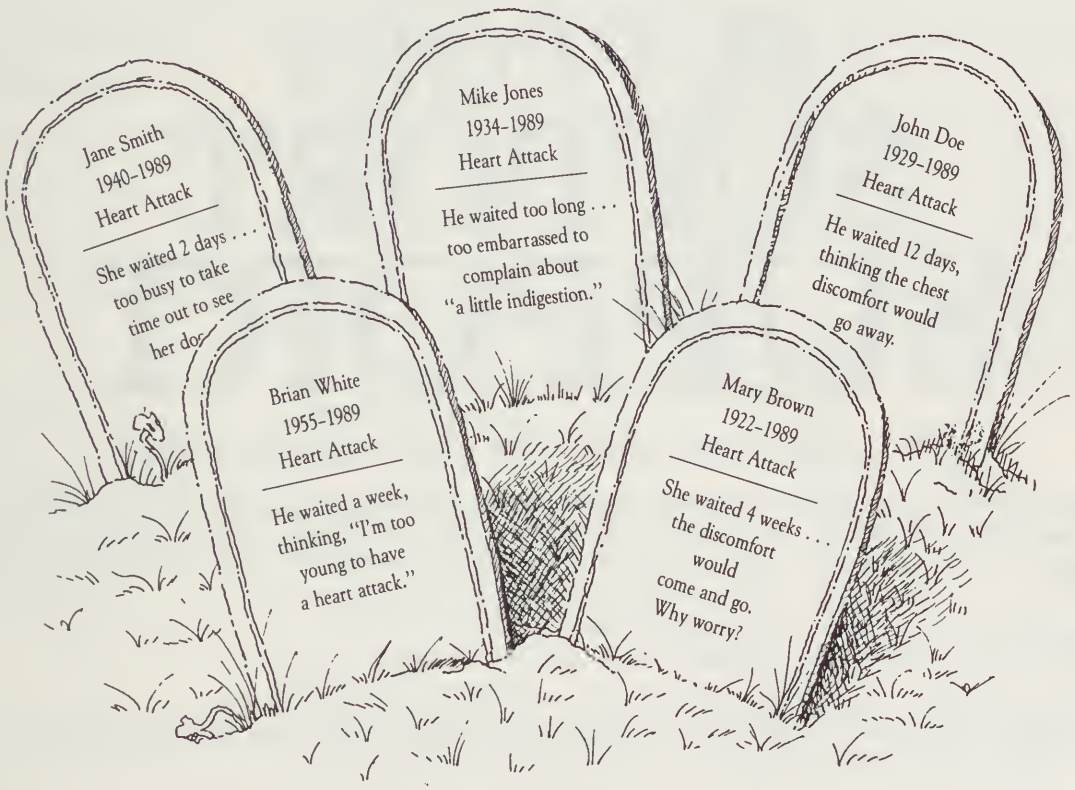
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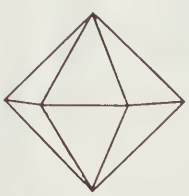
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Executive Director's Newsletter

April 1990

1990 Annual Meeting

Physicians are reminded to preregister for Med Chi's 192nd Annual Meeting on May 9-11, 1990 at the Turf Valley Hotel and Country Club in Ellicott City. "The 1990's: What Can We Expect?" is the theme for this meeting featuring several noteworthy speakers including plenary speaker AMA Trustee Lonnie Bristow MD, Physician Payment Review Commissioner Thomas Reardon MD and Victor A. McKusick MD, Professor of Medical Genetics from The Johns Hopkins School of Medicine. The meeting also will include technical exhibits as well as scientific sessions that will fulfill Category I CME credits. To preregister, physicians should complete and mail in the form on page 19 of the preliminary program mailed with the March issue of the *MMJ*. To request additional preregistration forms contact Med Chi's Education and Meetings Management Department at 1-800-492-1056 or 539-0872 in Baltimore.

Health Access America

In March Med Chi announced its support of the AMA's Health Access America, a proposal to improve access to affordable, quality health care for all Americans. The proposal, which accentuates the strengths of our medical care system, attempts to correct the problem of over 33 million Americans who lack health insurance coverage and cannot afford the cost of medical treatment. President Raymond M. Atkins MD said that Med Chi physicians are involved in several regional programs that support "Health Access America," such as Allegany Health Right Program in western Maryland. The proposal contains 16 points designed to correct our medical system's weaknesses by controlling healthcare cost increases, reforming Medicare and Medicaid, and insuring all Americans access to affordable health care. The proposal also will initiate further tort reform, establish state level risk pools for individuals who cannot afford insurance, and formulate practice parameters for physicians. Herman C. Maganzini MD, Chairman of Med Chi's Public Health Committee, will be the coordinator for this effort in Maryland. For more information on "Health Access America" contact Med Chi's Public Relations Department at 1-800-492-1056 or 539-0872 in Baltimore.

1990 Medicare Changes

In March physicians should have received a "Dear Doctor" letter identifying the many Medicare reimbursement and policy changes that will occur this year. Medicare has given physicians a March 31, 1990 deadline to change their participation status for the period April 1 through December 31, 1990. No action is required for physicians who retain their current status.

The "Dear Doctor" letter outlines a timetable of several key Medicare changes that will be in effect:

Effective April 1, 1990:

Medicare fees will be updated for 1990 and changes in physicians participating status will become effective.

Physicians who accept assignment for Medicare patients must accept assignment for Medicare patients who are also eligible for Medicaid benefits.

Unassigned claims that fail to include ICD-9 codes will be referred to the Health and Human Services (HHS) Inspector General for possible sanctions.

Effective May 1, 1990:
Assigned claims that do not include Medicare carrier identification numbers of the performing physician will be rejected.

Effective July 1, 1990:
Assigned claims will be denied if ICD-9 codes are incomplete or inaccurate. Unassigned claims will be referred to the HHS Inspector General for failure to submit complete or accurate ICD-9 codes.

Effective September 1, 1990:
Physicians must submit all Medicare claims to carriers regardless of the assignment decision.

Medicare carriers will initiate a congressional mandate to profile individual physicians whose practice patterns vary significantly from peer group norms. This activity is not punitive but rather an educational effort to advise physicians of practice variations.

For questions regarding the 1990 changes in Medicare, physicians should contact carriers for their area. In Prince George's and Montgomery County, contact Pennsylvania Blue Shield at 717-763-5700. All other physicians should contact Maryland Blue Cross/Blue Shield Provider Relations at 301-561-4057 or 301-561-4058.

Hepatitis C Blood Collection Testing

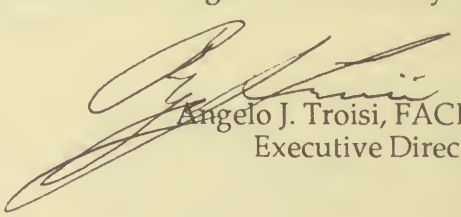
The American Red Cross announced recently that blood collection agencies will implement antibody testing for Hepatitis C (anti-HCV) in early April or as soon as licensed test kits become available. Hepatitis C virus appears to be the cause of the majority of non-A, non-B hepatitis. Once testing proficiency is established, the Red Cross will begin to replace hospital inventories with anti-HCV tested units.

CPR Study

The Maryland State Board of Education passed a resolution in 1982 encouraging students at the high school level to take part in learning CPR. In an effort to add early cardiac care to this CPR program a follow-up study was completed recently. Med Chi thanks Raymond D. Bahr MD, Medical Director for the Paul Dudley White Cornorary Care System and President of the Maryland Society of Cardiology, for his efforts in that study.

Ethical Obligation

Physicians are reminded that it is not inherently unethical for a physician to own, or own an interest in, a hospital, clinic, or other health care facility. However, sending a patient to such a facility soley for the physician's financial benefit is unethical. If you have a financial interest in any medical facility, you have an ethical obligation to inform your patients.



Angelo J. Troisi, FACHE
Executive Director

The President's Letter

Prepared by the President of the Medical and Chirurgical Faculty of Maryland as a service to its members



Medical
and Chirurgical Faculty
of Maryland

April 1990

February was an exciting and very productive month for the Faculty. Our efforts helped to improve communication by bringing more news and information to the membership through meetings held throughout the state.

Frederick County Medical Society Meeting

On February 20, Med Chi representatives, including myself, Executive Director Angelo Troisi and Lobbyist Gerry Evans, and attended the Frederick County Medical Society's monthly meeting. Officers and members were presented with an overview of events and projects concerning the Faculty including an update on the Triplicate Prescription and Mandated Medicare Assignment issues. Frederick County President-Elect Henry P. Laughlin MD's efforts in developing and hosting the meeting were sincerely appreciated.

Legislative Rally in Annapolis

On February 21, more than 150 physicians showed their support for organized medicine by attending the Med Chi rally in Annapolis. The strong turnout demonstrated to our representatives that physicians solidly support any effort to prevent further government regulation of medicine. During the assembly, I stressed the importance of physician unity. Lobbyist Gerry Evans urged physicians to oppose House Bill 617 on Mandated Medicare Assignment and House Bill 1248 on the Health Services Cost Review Commission's proposal to regulate anesthesiologist, radiologist, and pathologist services to their definition of "hospital services." Among the legislators speaking at the rally were House Speaker Clayton Mitchell and Senate President Michael Miller. Following the assembly, physicians adjourned to their local representatives offices to discuss medicine's concerns. On behalf of the Faculty, I would like to thank all the members who attended the rally and all the component society officers and executives who made this rally an outstanding success.

Southern Regional Conference

On February 22, Approximately 100 Med Chi members from Calvert, Charles, and St. Mary's Counties attended the Southern Regional Conference to hear updates on Med Chi policies and planning, upcoming legislation, and general news. Medical Mutual CEO Raymond M. Yow MD spoke on reductions in

liability insurance premiums brought about by Med Chi's persistent efforts to initiate further tort reform. Following the discussion, featured speaker Paul M. Fischer MD from the Medical College of Georgia spoke on the "Physician's Office Laboratory." Dr. Guillermo Sanchez's efforts in hosting the meeting are highly commended.

AMA Leadership Conference

On February 23, Executive Director Angelo Troisi and I attended the AMA National Leadership Conference in Phoenix, Arizona. "Strengthening the U.S. Health Care System" was the theme of this meeting that included seminars focusing on issues such as "Rationing Care" and "Understanding Our National Health Care Priorities." Maryland's Wayne C. Spiggle MD from the Allegany Health Right Program was featured in a seminar entitled "Bridging the Gap." The program was designed to present model programs demonstrating ways the medical profession can regain the public's trust. Allegany County's Health Right program for grey-area patients who do not qualify for government aid and cannot afford health insurance is an ideal example of a program that epitomizes the attitude inherent in physicians: to strengthen the doctor/patient relationship.

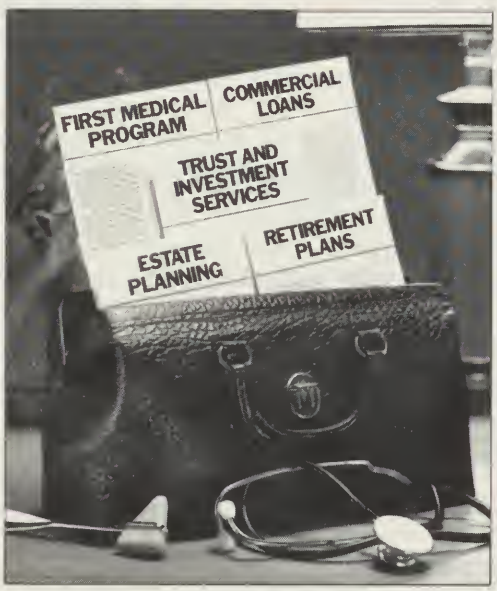
In the coming months, look for articles in the *Maryland Medical Journal* on the various social, economic, and legislative changes outlined at the AMA's National Leadership Conference on February 23-26.

I would like to extend my appreciation to all those hardworking members who participated in this month's important activities. It is my hope that by continuing to focus on improved communication to all physicians in Maryland, Med Chi will best serve the needs of its membership.



Raymond M. Atkins MD
President

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100 Years of Research Advances: The Johns Hopkins Hospital and School of Medicine

Simeon Margolis MD, PhD

Dr. Margolis is Associate Dean for Academic Affairs, The Johns Hopkins University School of Medicine.

When The Johns Hopkins Hospital opened a century ago, the president of the Johns Hopkins University, Daniel Coit Gilman, cautiously listed the accomplishments he envisioned for twentieth century medicine. Among them were the "disappearance of epidemics, fewer days of confinement in sickness, fewer minor ailments, a decrease of infantile mortality, greater powers of resistance to the evils of certain occupations, and comparative immunity from many infirmities which are now common, artificial reinforcements and replacements of bodily defects, simpler and surer means of diagnosis [and] the detection of the nature, origin, and history of specific disorders."

The collection of articles in this special issue of the *Maryland Medical Journal*, which recognizes the Centennial of The Johns Hopkins Hospital and School of Medicine, report research advances from Hopkins scientists that both fulfill and challenge Gilman's expectations, as well as our own.

For example, the AIDS epidemic, surely the most ferocious of modern times, threatens the public health; and Hopkins scientists Chaisson and Smith, authors of the article on page 365 are among those at Hopkins seeking control of HIV infection through research, prevention, and clinical care.

A number of articles address Gilman's desires for shorter hospital stays, increased wellness, less infant mortality, and preventive medicine. Particularly note Diwan's paper on laser therapy in the treatment of congenital vascular abnormalities (page 343), Dover's on the management of sickle cell anemia (page 371), and Guerci's on thrombolytic therapy (page 377).

Yeager's article (page 337) on prospects for bone marrow transplants in genetic deficiency diseases speaks to Gilman's hopes for "replacements of bodily defects" as surely as have advances in large organ transplantation, prosthetics, and reconstructive surgery.

As for the search for "simpler and surer" means of diagnosis and natural history and molecular origins of disease, the articles by Blakemore (page 325) on prenatal diagnosis and by Rovner, Folstein, and Meyer on Alzheimer's disease (page 399) carry on a commitment to the mission of research in service to patients set forth by Gilman, Billings, Welch, Halsted, Kelly, Osler, and others who populated Hopkins' labs and wards so many years ago.

The selected reports in this issue show the present generation of physicians and scientists are continuing the Hopkins tradition. We chose topics we believe are of interest and use to physicians and readers of *MMJ* as well as of value in the care of patients. Time will reveal whether our version of Gilman's vision will bring more health and well-being to our patients, the people of the state of Maryland, and the larger world population. But as these articles suggest, we are marking the times well. ■

MRI UPDATE



Figure 1



Figure 2


Figure 3

CLINICAL INFORMATION: This is a 69-year-old male who is unable to abduct his right arm and who has difficulty extending his arm. This is associated with right shoulder pain.

FINDINGS: Figure 1 is a proton density image in the coronal plane of the right shoulder. There is degenerative hypertrophy of the right acromioclavicular joint with a prominent inferior projecting osteophyte (A). A roughly linear area of low signal intensity inferior to the right distal clavicle represents the medial aspect of the rotator cuff (labeled B). A thin linear structure of low signal intensity superior to the right humeral head (labeled C) represents the lateral portion of the rotator cuff. Figure 2 is a T2-weighted image again demonstrating the inferior projecting osteophyte from the acromioclavicular joint (A) and the components of the torn rotator cuff (labeled B and C) as previously described. Increased signal intensity material between the torn portions of the rotator cuff represents joint fluid lying both within the joint space and in the subacromial bursa. Image #3 is a partial flip angle image which is sensitive for T2-weighting. This exhibits increased signal intensity in the immediate region of the rotator cuff tear as well as extending lateral over the right humeral head. The level of this slice is slightly anterior to figures 1 and 2 and the increased signal intensity material represents joint fluid extending over the right humeral head into the subdeltoid bursa.

The MR images demonstrate complete disruption of the rotator cuff which may be due to an acute injury or possibly due to chronic entrapment of the rotator cuff by the degenerated right acromioclavicular joint.

COMMENT: MR imaging is the only modality capable of directly visualizing and differentiating the various soft tissue components of the musculoskeletal system. Only CT arthrography approaches this degree of accuracy in the detection of rotator cuff tears, however CT arthrography like its cousin, routine shoulder arthrography, is invasive and requires injection of contrast into the shoulder joint. MR is the imaging modality of choice in the initial evaluation of soft tissue injuries of the shoulder joint with routine or CT arthrography reserved for those patients on whom the MR study was indeterminate.

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Prenatal Diagnosis: Historical and Futuristic Perspectives

Karin J. Blakemore MD

Dr. Blakemore is Assistant Professor, Gynecology and Obstetrics, The Johns Hopkins University School of Medicine.

Prenatal diagnosis is a rapidly expanding field, as the latest advances in human genetics continue to embrace the newer technologies in gynecology and obstetrics.

The impressive expansion of prenatal diagnosis services to couples at risk for genetic disease in their offspring is a direct corollary of the explosion of information that has occurred over this same period in the field of human genetics. Simultaneously, major milestones have been achieved in obstetrics and gynecology, enabling the development of a variety of new obstetrical techniques for this exciting work.

The Tay-Sachs screening program, which began in Baltimore in the early 1970s through the Kennedy Institute and Johns Hopkins Hospital, led to the identification of couples at risk who could then be offered a prenatal diagnostic test. Screening programs such as this are vitally important, since patients can be offered diagnosis before the birth of an affected child. Most families at risk for an inborn error of metabolism are identified through the birth of a child with the disease because no screening test is yet available. One exception is the hemoglobinopathies (sickle cell anemia and the thalassemias) in which, like Tay-Sachs, the ethnic background of the couple prompts a simple blood-screening test.

The most commonly used screening test is the pregnant woman's age, given the increased risk of fetal cytogenetic abnormalities as mothers get older. All women who will be 35 or older at delivery should be offered genetic counseling for the risk of a chromosomal abnormality in their offspring. Today, many women in their early 30s also request prenatal diagnosis for cytogenetic study.

Maternal serum alpha-fetoprotein (AFP) screening is now offered to all pregnant women. The test was developed in the United Kingdom,[1] where the incidence of neural tube defects is relatively high. Elevations of this fetal protein in the mother's blood can detect 80 to 85 percent of open neural tube defects (spina bifida and anencephaly). It also may detect ventral wall defects, such as omphalocele or gastroschisis. The test has a high false-positive rate, since less than 5 percent of fetuses in women with a serum elevation actually have such birth defects. Further testing, including a careful ultrasound examination of the fetus and amniocentesis, are used to rule out these anomalies. Testing the amniotic

fluid concentrations of AFP, as well as of acetylcholinesterase, has a much lower false-positive rate, and detects 98 percent of neural tube defects. Many couples who have given birth to an affected child opt for amniocentesis for AFP determination in future pregnancies.

Low maternal serum AFP levels are now known to be associated with autosomal trisomies (trisomy 21 and trisomy 18). Factoring in the maternal age, many laboratories, including most of those in Maryland, provide the obstetrician with an AFP-adjusted risk of Down syndrome, and if that figure is equal to or greater than the risk of Down syndrome in a 35-year-old woman, amniocentesis can be offered to the patient for cytogenetic analysis. In the near future, two additional maternal screening tests for Down syndrome should become available, human chorionic gonadotropin, which tends to be elevated in the blood of the pregnant woman carrying a Down syndrome fetus, and estriol, which, like AFP, tends to be low. The combination of the four screens (maternal age, AFP, human chorionic gonadotropin, and estriol) appears in preliminary trials to be capable of detecting approximately two thirds of Down syndrome fetuses.

The first disorder credited to prenatal diagnosis really is a genetic disease, Rh incompatibility. Amniocentesis on Rh-sensitized women for the detection of bilirubin in Rh-positive fetuses was first used in 1950.[2] The resulting anemia from red cell breakdown in Rh-affected fetuses was also the first disease process in which *in utero* therapy was successful. The technique of amniocentesis for the diagnosis of Rh disease found applicability in the prenatal diagnosis of a great many genetic disorders and birth defects. Today fetal umbilical cord blood sampling for antenatal diagnosis of certain genetic disorders has become a powerful tool in the management of the Rh-sensitized pregnancy.

Current Diagnostic Techniques

Four techniques are used to gain access to samples that accurately reflect the fetus: amniocentesis, fetal blood sampling, chorionic villus sampling, and fetal skin biopsy. Intimately related to the evolution of all four is the development of diagnostic ultrasound imaging.

Sonography has become a powerful tool in the obstetrician's and geneticist's repertory. Real-time sonography, developed in the mid to late 1970s, permitted more than a frozen image of the wonders within the uterus. Like a movie, continuous images are shown on the screen at a rate of 15 frames per second or greater. Modern equipment can achieve frame rates on the order of 40 per second. High-resolution ultrasound in the early 1980s sharpened the view even more with electronic focusing of the sound beam. Today's equipment allows for imaging that can precisely guide a needle into the tiny umbilical vessel of an 18-week fetus. Ultrasound guidance clearly has improved the safety of amniocentesis, enabling localization of the placenta (as well as of the fetus). The availability of ultrasound was essential to the development of the other prenatal diagnostic techniques as well.

High resolution ultrasound has largely replaced fetoscopy as a method of visualizing fetal anatomy. Fetoscopy is performed using 1.7 mm diameter endoscopes within cannulae 2.0 mm or greater. Even with the smallest cannula, fetoscopy is associated with fetal loss rates of 1 to 5 percent.

Sonographic visualization of fetal anatomy has become a science unto itself.[3] Many, though not all, major birth defects can be visualized between 16 and 20 weeks' gestation. In many European centers an obstetrical sonogram routinely is performed in the mid-second trimester of all pregnancies for dating purposes as well as for a fetal anatomy screen. Many couples who have had a child with a major birth defect can be reassured by a normal sonogram in subsequent pregnancies. Some genetic syndromes (those featuring a sonographically detectable anomaly) can be evaluated using ultrasound in at-risk pregnancies. Fetal echocardiography is offered at a number of medical centers (including Hopkins) for a variety of indications. By focusing on the fetal heart at 18 weeks of gestation or greater, well over 90 percent of serious cardiac structural anomalies as well as arrhythmias can be detected.

As in all aspects of prenatal diagnosis, attempts to move the time of detection to earlier and earlier gestational ages have been under way in the arena of ultrasound. New transvaginal ultrasound transducers permit a closer look at the developing fetus in the first trimester, when the uterus is still relatively distant from a transabdominal approach. Some of the larger birth defects are detectable at eight weeks using a transvaginal approach, and the detection of embryonic viability via fetal heart motion can be demonstrated clearly by six menstrual weeks. In general, the embryonic structures of early gestation can be visualized about one week earlier with transvaginal scanning as compared to transabdominal.[4]

Amniocentesis

Amniocentesis is still the gold standard against which other prenatal diagnostic techniques are compared. Still the most widely used procedure, an amniotic fluid sample provides a source of fetal cells as well as a supernatant for biochemical markers. The most common indication for genetic referral by obstetricians is maternal age, and most of the amniocentesis performed today uses amniotic fluid *cells* some of which are viable and can be grown and harvested for cytogenetic analysis. In the initial efforts at chromosomal analysis from cultured amniocytes[5] cell growth was poor and relatively slow. The time to results has shortened over the years from four to five weeks to as little as seven or eight days, using *in situ* techniques. Instead of collecting all the growing cells from the bottom of a flask into a test tube, the techni-

que currently performed in the Prenatal Cytogenetic Laboratory at Johns Hopkins allows the cells to be grown *and* harvested directly on small glass coverslips. Under the microscope, cells from individual colonies can be analyzed, seen as they were when growing. This technique has yielded a considerable savings in time to harvest.

Cells representing the fetus also can be used for molecular (DNA) analysis or biochemical analysis. Cultured amniocytes were first used for prenatal molecular diagnosis for the detection of sickle cell disease in 1976.[6] The ability to expand the portion of the genome of interest using the newly developed polymerase chain reaction (PCR) techniques demonstrates yet another breakthrough in prenatal diagnosis. Amniocytes need not be cultured, since enough cells are available from the fresh amniotic fluid sample to undergo DNA extraction and PCR, saving weeks of culture time. This method is useful only for disorders in which a known gene can be amplified, that is, a sequenced gene primer must exist before PCR can be performed, but the technique is being applied at Johns Hopkins in the prenatal diagnosis of hemoglobinopathies.[7]

The majority of inherited biochemical disorders may be successfully diagnosed prenatally because there is a known metabolic by-product or biochemical marker to examine. These include the lysosomal storage diseases, amino acid disorders, and many other inborn errors of metabolism. Sometimes the marker is studied in amniotic fluid supernatant; more often, viable cells are required for the biochemical assay. Until 1983, cultured amniocytes were the only source of viable cells reflective of the fetus for these assays. Since the advent of chorionic villus sampling, however, most (though not all) of this group of genetic disorders can be ascertained through *uncultured* (fresh or frozen) villus fragments. This saves weeks of anxious waiting for at-risk couples, since the time required for cell culture is eliminated. Cultured villus cells also frequently are used, amenable as they are to the established laboratory assays that have been worked out for cultured amniocytes.[8] Some disorders, like osteogenesis imperfecta due to a defect in collagen formation, show expression of the defect in cultured chorionic villi (or fetal skin), but not in cultured amniocytes.

Despite a rather vast experience with amniocentesis, its procedure-related risk of miscarriage is not clear. Amniocentesis today is performed using real-time ultrasound guidance, and one would think that older risk figures might be modified in light of the enhanced safety that sonographic visualization provides. In the US collaborative study, published in 1976,[9] no statistically significant difference in fetal loss rates was found between the amniocentesis group and controls (3.5 percent and 3.2 percent, respectively). Only 29 percent of the cases had sonographic localization of the placenta prior to amniocentesis. A more recent study from the Netherlands[10] reported a 1 percent procedure-related loss rate for ultrasound-guided amniocentesis; this study was well designed, and the data cannot be ignored: it corroborates the 1978 figures generated by the United Kingdom Medical Research Council on the hazards of amniocentesis,[11] yet not all patients in the British study underwent sonography.

Early amniocentesis, even as early as 10 gestational weeks, is undergoing trials for safety and accuracy. Attention is being given to the detectability of alpha-fetoprotein and acetylcholinesterase in first trimester amniotic fluid specimens, as well as to the speed of cytogenetic laboratory results from these earlier samples. Continuous ultrasound guidance is essential; without it this new approach would not have been conceived.

Fetal Blood Sampling

Fetal blood sampling was a fairly hazardous procedure when first attempted via placental fetal vessel puncture in the early 1970s. Fetal loss rates declined to between 1 and 5 percent with the advent of fetoscopy, using scopes housed in 2.0-3.0 mm cannulae with a Y-sided arm.[12] The most common indication for fetoscopic blood sampling was beta-thalassemia. In the early 1970s it became apparent that beta-globin was synthesized by fetal red blood cells early in human gestation[13] raising the possibility of *in utero* diagnosis of beta-thalassemia if a safe method of fetal blood sampling became available. Fetoscopy answered that need,[12] and beta-thalassemia soon entered the ranks of prenatally diagnosable genetic diseases.[14]

With the developments in the molecular analysis of beta-thalassemia,[15] first with linked DNA polymorphisms and later direct detection of the mutation(s) involved in beta-thalassemia, fetal blood sampling no longer became necessary. DNA reflecting the fetal status could be obtained by the alternative and less formidable techniques of amniocentesis or chorionic villus sampling.

While fetoscopic blood sampling for hemoglobinopathies rapidly gave way to molecular diagnosis, a safer method of obtaining a fetal blood sample was being developed.[16] Ultrasound-guided needle puncture of an umbilical cord vessel (cordocentesis) quickly replaced the fetoscopic technique during the mid-1980s. Usually performed with a 20 or 22 gauge needle, fetal loss estimates for cordocentesis vary from as low as 1 in 600 to 2 percent.

The most common reason for fetal blood sampling is for rapid fetal karyotype; cytogenetic results are available in three days and sometimes 48 hours. Other cytogenetic indications include the fragile X syndrome and study of chromosomal mosaicism. When an amniocentesis is precluded by marked oligohydramnios, cordocentesis provides an alternative means of obtaining fetal cells. The management of Rh and other blood group isoimmunizations has improved, especially in severely affected cases, with cordocentesis. The fetus's blood type and actual hematocrit can be obtained.

Blood transfusions are performed via this same technique into the fetal vascular system as an alternative to the fetal peritoneal cavity. Largely due to the development of ultrasound-guided cordocentesis, there is a significant increase in survival rates for hydropic and/or severely anemic fetuses, particularly those who manifest severe hemolytic disease before 26 weeks' gestation.

Other uses of fetal blood sampling in prenatal diagnosis include severe combined immunodeficiencies, chronic granulomatous disease, and congenital infections. For some immunodeficiency states, the search for a bone marrow donor can begin long before birth with the concomitant use of prenatal human leukocyte antigen (HLA) typing of the affected fetus. Fetal treatment and prevention of congenital toxoplasmosis via maternal pharmacologic agents is being undertaken based on fetal blood results. Indeed, relatively easy access to the fetal circulation should find future applications in pharmacologic therapy directly to the fetus.

Chorionic Villus Sampling

Chorionic villus sampling, a new prenatal diagnostic technique, allows an earlier and more rapid result than does amniocentesis.[17] Ultrasound guidance was a prerequisite to the development of a safe sampling method. The placenta, composed of chorionic villi, genetically reflects the conceptus, not the mother. The original biopsies of the early placentas had been attempted in Scandinavia in the late 1960s using hysteroscopes that were 5 and 6 mm in diameter. High miscarriage rates and the simultaneous development of amniocentesis precluded further developments in placental biopsy in Europe for the next decade. The idea of a safe first-trimester option for patients became a reality in the early 1980s, with Italian and British investigators developing a transcervical ultrasound guided catheter method of aspirating small villous samples. The French used ultrasound-guided forceps. In the spring of 1983 as attempts in the United States were getting under way, a letter to the editor from a group in Milan appeared in the *Lancet* describing the diagnosis of trisomy 21 at 11 weeks gestation just 5 hours after chorionic villus sampling.[18] This was received with great excitement by colleagues in the field.

Because the early placenta is so mitotically active, Simoni working in Milan reasoned that there might be enough cells in metaphase to accomplish cytogenetic analysis without prior cell culture. He succeeded, and his method, so-called direct cytogenetic analysis, is used by numerous laboratories around the world with few modifications. It provides a rapid result with little risk of maternal contamination, although the chromosomal morphology is poorer than with cultured cell analysis. As the technique spread, it became apparent that the placenta of human conception might tolerate a cytogenetically abnormal cell line not present in the fetus itself. This phenomenon of mosaicism confined to the placenta is seen in about 1 percent of chorionic villus specimens, more often on direct preparations than in culture. Most laboratories today are turning to short-term cultures of chorionic villi either solely or as a backup to the direct cytogenetic analysis. Amniocentesis is recommended if questions remain concerning the possibility of a cytogenetically abnormal cell line in the fetus; in the vast majority of instances, the amniotic fluid cell analysis is normal.

The risks of chorionic villus sampling must be analyzed in light of the relatively high background miscarriage rate in the first trimester of pregnancy. Maternal age factors into this: older women have higher rates of spontaneous abortion and the vast majority of patients undergoing the procedure for cytogenetic analysis do so because they are older. The NIH Collaborative Trial, published in 1988,[19] found no statistically significant difference in fetal loss rates comparing women undergoing chorionic villus sampling to those having mid-trimester amniocentesis. Current estimates of the procedure-related risk of chorionic villus sampling are generally quoted at 1/200 to 1 percent. Increasingly, a transabdominal approach to chorionic villus sampling is undertaken using ultrasound-guided needle aspiration, with similar pregnancy loss rates. Chorionic villus sampling can also be performed in the second or third trimester of pregnancy using a transabdominal technique.

Our understanding of human disease at the molecular level has progressed at an astonishing rate in the past decade.[20] Chorionic villus sampling was immediately adapted to these exciting new developments, permitting first trimester prenatal diagnosis of many disorders hardly imaginable a few years earlier. In fact, most of the diagnoses currently possible using amniotic fluid cells have been adapted to chorionic villi. Many laboratory methods, moreover, can be applied to fresh or frozen villus fragments without the time-consuming cell culture. DNA can be extracted directly from the villi, and a preliminary result for biochemical disorders is often available within days (or even hours for Tay-Sachs disease, for example) of the procedure. Laboratories such as Haig Kazazian's and the Mosers' at Johns Hopkins Hospital and the Kennedy Institute were among the first to adapt their methods to chorionic villi, receiving villus samples from around the world from pregnancies at-risk for a variety of serious genetic disorders, such as hemoglobinopathies, hemophilia A and B, and adrenoleukodystrophy.

Fetal Skin Biopsy

Fetal skin biopsy is yet another prenatal diagnostic technique, although it is much less frequently requested than are other methods. It was developed for two main indications: the genetic dermatoses and to further evaluate possible chromosomal mosaicism in

the fetus. The minute skin biopsies are large enough to be studied microscopically for fetal skin disorders and can be expanded in culture for cytogenetic analysis. Fetoscopically derived fetal skin biopsy, with the same 1 to 5 percent risk that applies to other procedures using the fetoscope, probably will be replaced by an ultrasound-guided technique. Trocars housing a biopsy forceps with diameters on the order of 1.5 mm are being investigated at Hopkins and other centers.

Toward the Future

There are, a whole host of recognized genetic disorders for which there is yet no understanding of their molecular or biochemical basis.[21] For some milder disorders, prenatal diagnosis may not be of much interest. For others, the ability to provide an antenatal diagnosis will be clinically very important, opening a door to couples who might otherwise fear conceiving an affected child. Just as for the list of genetic diseases now amenable to antenatal diagnosis, history surely will repeat itself for those we still find perplexing. Prenatal diagnosis will continue to tread on the heels of discoveries concerning the pathogenesis of disease.

We look toward expanding the treatment of genetic disease *in utero*. Initially this may be by stem cell transfer or yet-untried therapeutic regimens via the mother. Efforts will be forthcoming in the field of gene transfer to push the timing of such therapy to earlier and earlier stages of fetal and embryonic development. As advances in human genetics embrace the latest technologies of reproductive medicine, preimplantation and even preconceptual prenatal diagnosis and therapy may become a reality.

References

1. UK Collaborative Study. Maternal serum-alpha-fetoprotein measurement in antenatal screening for anencephaly and spina bifida in early pregnancy. Lancet 1977;1:1323.
2. Bevis DCA. Amniotic fluid: Measurement of pigment by spectrophotometry. J Obstet Gynecol Br Emp 1956;63:68.
3. Sanders RC, James AE, Jr. The Principles and Practice and Ultrasonography in Obstetrics and Gynecology. Third ed. New York: Appleton-Century-Crofts, 1985.
4. Timor-Tritsch IE, Rottem S, Blumenfeld Z. Pathology of the early intrauterine pregnancy. In Timor-Tritsch IE, Rottem S, eds. Transvaginal Sonography New York: Elsevier, 1988: 111.
5. Steele MW, Breg WR. Chromosome analysis of human amniotic fluid cells. Lancet 1966;1:383.
6. Kan YW, Golbus MS, Dozy AM. Prenatal diagnosis of alpha-thalassemia: Clinical applications of molecular hybridization. N Engl J Med 1976;295:1165.
7. Boehm CD, Dowling CE, Scott AF, Saiki RS, Erlich HA, Kazazian HH, Jr. General usefulness of the polymerase chain reaction technique to prenatal diagnosis of hemoglobinopathies. Am J Hum Genet 1987;41:Suppl:A94, abstract.
8. Galjaard H, Kleijer WJ. Biochemical analysis of chorionic villi. In Brambati B, Simoni G, Fabro S, eds. Chorionic Villus Sampling: Fetal Diagnosis of Genetic Diseases in the First Trimester. Clinical and Biochemical Analysis. Vol 21. New York: Marcel Dekker, Inc., 1986:131.
9. The NICHD National Registry for Amniocentesis Study Group. Midtrimester amniocentesis for prenatal diagnosis. Safety and Accuracy. JAMA 1976;236:1471.
10. Tabor A, Philip J, Madsen M et al. Randomized controlled trial of genetic amniocentesis in 4606 low-risk women. Lancet 1986;1:1287-93.
11. Medical Research Council Working Party on Amniocentesis. An assessment of the hazards of amniocentesis. Br J Obstet Gynaecol 1978;85(Suppl 2).
12. Hobbins JC, Mahoney MJ. In utero diagnosis of hemoglobinopathies. Technic for obtaining fetal blood. N Engl J Med 1974;290:1065.
13. Hollenberg MD, Kaback MM, Kazazian HH, Jr. Adult hemoglobin synthesis by reticulocytes from the human fetus at midtrimester. Science 1971;174:698.
14. Kan YW, Golbus MS, Klein P, Dozy AM. Successful application of prenatal diagnosis in a pregnancy at risk for homozygous beta-thalassemia. N Engl J Med 1975;292:1096.
15. Kazazian HH, Jr., Boehm CD. Molecular basis and prenatal diagnosis of beta thalassemia. Blood 1988;72:1107.
16. Daffos F, Parlowsky M, Forestier F. A new procedure for fetal blood sampling. Preliminary results of 53 cases. Am J Obstet Gynecol 1983;146:985.
17. Blakemore KJ, Mahoney MJ. Chorionic villus sampling. In Milunsky A ed. Genetic Disorders and the Fetus: Diagnosis, Prevention, and Treatment. Ed 2. New York: Plenum Press, 1986:625-60.
18. Brambati B, Simoni G. Fetal diagnosis of trisomy 21 in the first trimester of pregnancy. Lancet 1983;1:586.
19. Rhoades GG, Jackson LG, Schlesselman SE et al. The safety and efficacy of chorionic villus sampling for early prenatal diagnosis of cytogenetic abnormalities. N Engl J Med 1989;320:609.
20. Antanarakis SE. Diagnosis of genetic disorders at the DNA level. N Engl J Med 1989;320:3, 153-63.
21. McKusick VA. Mendelian inheritance in man. Eighth ed. Baltimore: The Johns Hopkins University Press, 1988.

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Current Technology of *in vitro* Fertilization and Embryo Transfer

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Since the initial human in vitro fertilization (IVF-ET) procedure in 1978, the laparoscope was the primary method for oocyte collection. Although laparoscopic retrieval instrumentation has been refined, ultrasound-guided follicular puncture has become the major retrieval technique in IVF-ET repertoire. The Johns Hopkins In Vitro Fertilization Program was initiated in 1984, recording the first in vitro pregnancy in Maryland.

The first successful *in vitro* fertilization (IVF-ET) pregnancy was achieved in 1978 by Steptoe and Edwards with aspiration of one oocyte obtained from a spontaneous natural cycle.[1] Laparoscopic oocyte retrieval techniques were used, with transfer of one cleaving embryo. Since that time much effort has been directed toward development of optimal stimulatory agents in order to produce mature oocytes: follicular stimulation techniques have produced multiple oocytes and thus more cleaving embryos. The larger number of cleaving embryos was an impetus to the development of the methodology of human embryo cryopreservation. In addition, ovulation induction regimens and oocyte retrieval techniques from IVF-ET were employed in the recently developed gamete intrafallopian transfer (GIFT) procedure. Pregnancy success of *in vitro* fertilization cycles appears to increase with the number of embryos transferred with an overall rate of 15 to 25 percent per cycle in world centers. The new methodologies and refinements in existing techniques introduced within the past three years may increase the number of cleaving embryos and thus increase the pregnancy rate per patient attempt.[2]

Selection of Patients

The major indication for IVF-ET is failure of conventional medical or surgical therapy to reverse infertility. The classic indication for IVF-ET (previous salpingectomy or salpingectomies for ectopic pregnancy) has been joined by other indications: failed reconstructive tubal surgery, lysis of adhesions, or cornual and distal tubal obstruction. Other infertility problems, such as endometriosis refractory to hormonal and surgical therapy, also have been treated successfully with the IVF procedure. Tubal factors and endometriosis, along with the category of unexplained infertility, account for the majority of candidates for IVF-ET. Additional indications include severe cervical factor, oligospermia, and such immunologic factors as sperm antibodies in the man or woman. One IVF candidate may have multiple causes of infer-

tility, such as a combination of tubal disease and oligospermia. The causes of infertility and the IVF patients in The Johns Hopkins Hospital IVF program are summarized in the Table.

A screening laparoscopy may allow determination of ovarian accessibility prior to an IVF attempt in patients who have had pelvic adhesions. We at Johns Hopkins no longer perform a screening laparoscopy since the availability of operative laparoscopic techniques has allowed lysis of adhesions and ovarian mobilization to be performed concurrently with IVF. Ultrasound-directed oocyte retrieval does not require ovarian mobilization.

The assessment of patients for IVF-ET should include consideration of not only infertility factors but also general health, absence of contraindications to pregnancy, regularity of ovulation, luteal phase sufficiency, and absence of genital tract infections in husband and wife. Accessibility of the ovaries for oocyte recovery by either laparoscopy or ultrasound retrieval, and other variables including sperm count, motility, and morphology, also should be assessed. Our screening for IVF couples includes a complete andrology survey for the husband and a study of the wife's serum with a mouse embryo culture system. In addition, we require an interview with a psychological counselor and provide counseling for all couples prior to the IVF attempt.[3]

We have not completely excluded patients over the age of 40 from IVF procedures, even though they may be relatively infertile and may have a high spontaneous miscarriage rate. Each patient should be assessed individually with emphasis on normal uterine function, ovulation, and semen parameters.

Follicular Stimulation Techniques

The objective of ovarian stimulation is recruitment of a cohort of follicles in the time framework of the FSH (follicle-stimulating hormone) recruitment window which occurs between days 3 and 5 in a 28-day cycle. Clinical monitoring parameters of follicle growth such as serum estradiol assays, sequential real time ultrasound measurements of follicle diameter, and cervical mucus evaluation allow the determination of critically timed steps such as discontinuation of stimulatory agents, administration of human chorionic gonadotropin (hCG), and oocyte retrieval.

Table. Causes of Infertility in Patients in The Johns Hopkins Hospital IVF Program

Major Cause of Infertility	Percentage of total
Tubal disease	39.2
Endometriosis	25.8
Unexplained infertility	23.6
Oligospermia	6.2
Immunologic factors	3.1
Cervical factor	2.1

Follicular induction regimens in current use include clomiphene citrate (CC), human menopausal gonadotropin (HMG), pure FSH, and gonadotropin releasing horomone analog (GnRha).

CC in doses from 50-150 mg/day is administered for 5 days varying between days 3 and 7 of the cycle along with human chorionic gonadotropin, 5-10,000 International Units (IU), given according to estrogen response and ultrasound diameter of the dominant follicles. In 80 percent of clomiphene cycles for IVF-ET oocytes are obtained, with an average of 1.6 to 2.1 retrieved per cycle. Pregnancy rates with clomiphene cycles range from 11 to 20 percent, with a mean of 1.6 $\pm$ 0.2 embryos transferred.

Recent studies showed that clomiphene in doses of 50 or 150 mg do not differ in success rates for mature oocytes retrieved. However, an increase in the number of follicles recruited is seen with HMG supplementation of clomiphene regimens. Starting on day 6 or 7 of a clomiphene cycle, 1 to 4 ampules of HMG are added per day for a 3 to 4 day period. HMG also may be administered concurrently with clomiphene throughout the induction period. With these combination regimens, the number of oocytes obtained is 3 to 5.2 per cycle. Pregnancy rates range from 17 to 25 percent with 2.5 $\pm$ 0.3 embryos transferred.

Anticipating that the ovarian response may be more dependable than with clomiphene and that the antiestrogenic effects on cervical mucus and the endometrium may be avoided, pure HMG/hCG regimens were instituted. HMG administration in doses of 1 to 4 ampules per day beginning on day 3 of the cycle, results in 3.6 to 5.1 oocytes per cycle with pregnancy rates from 20 to 26 percent. The mean number of embryos transferred is 2.3 $\pm$ 0.3. the number of immature oocytes collected at laparoscopy however, is higher in HMG groups compared to clomiphene/HMG and clomiphene alone. In reviewing results from centers throughout the world, however, no statistical difference can be found in any of the stimulation regimens based on pregnancy rate alone at the present time.[4]

A greater understanding of the mechanisms of follicular and oocyte development and the intrafollicular environment is important in the efficiency of IVF-ET therapy. New gonadotropin preparations with a greater emphasis on pure FSH were applied to IVF-ET protocols. Pure FSH, with minimally detectable LH in the preparation, is capable of stimulating ovarian estradiol secretion at a level not dissimilar from that obtained by the same dose of a urinary HMG preparation containing an equal ratio of FSH to LH.[5] The elimination of the LH factor in the early portion of the follicular phase more closely simulates the natural cycle, allows a more homogeneous follicular response, and may produce oocytes of better quality than with a mixed preparation of gonadotropins.

Pure FSH has been used in the Johns Hopkins Program since 1987. Preliminary reports of pure FSH in IVF-ET programs showed pregnancy rates of 20 to 28

percent. A larger number of oocytes appear to be obtained (mean 5.3-8.1) perhaps reflecting events occurring in the FSH recruitment window. An additional effort to reduce the individual variability of follicular response to gonadotropin therapy is pretreatment with a Gonadotropin-releasing hormone (GnRH) agonist. In animal studies, administration of a GnRH agonist prior to pure FSH maintained a relatively hypogonadotropic state regarding endogenous gonadotropin secretion and increased homogeneity of ovarian estradiol secretion during therapy. Thus, by reducing the confounding problem of individual follicular variation in response to treatment with gonadotropins, a more uniform retrieval of oocytes may be achieved with GnRH agonist pretreatment, which may be applicable to the IVF-ET setting. GnRH analogs have been used in the Johns Hopkins Program since 1988, resulting in greater than 6 oocytes in most patients.

Oocyte Retrieval Techniques

Laparoscopic Oocyte Retrieval In 1970 Steptoe and Edwards first described the use of the laparoscope for oocyte aspiration, using a medium gauge needle of 1.2 mm internal diameter placed in the left lower quadrant of the abdomen 7 cm from the midline. Oocyte recovery rate with this technique was 32 percent Lopata, in 1974, using a 20 gauge aspirating needle with a 45° bevel on the end and a separate laparoscope, accessory trocar, and needle system, achieved an oocyte retrieval rate of 45 percent. These aspirations were performed at 200 mm of mercury vacuum pressure. Renou, in 1981 demonstrated that a teflon-lined needle system 23 cm in length with an internal diameter of 1.6 mm and external diameter of 2.1 mm resulted in an 80 to 100 percent egg recovery rate. With this system 100 mm of mercury negative pressure was adequate to obtain satisfactory aspirations.

Present day IVF-ET laparoscopic aspiration methodology includes a two-puncture system using an offset operating laparoscope containing an operating channel through which the operating needle is passed. A second puncture is performed for placement of a grasping forceps on the utero-ovarian ligament. Oocyte aspiration is accomplished by a single lumen needle (teflon lined or without teflon) ranging in size from 12 to 14 gauge with an internal diameter of 1.2 mm to 2.16 mm. In the Norfolk program a 12 gauge needle with a 2.16 mm internal diameter and a 45° bevel is used.[6] Of particular interest is the raised external band 5 mm from the most distal point of the needle tip that enables the operator to determine the depth of penetration of the needle into the follicle (Figure 1). Suction devices used once the needle is placed into the follicle are either a 50 cc syringe suction (which creates a negative pressure of approximately 200 mm of mercury) or a wall suction system adjusted to approximately 100 mm of negative pressure. With the two-puncture system, an egg recovery rate of 89 to 94 percent has been achieved. Other IVF teams use the operating laparoscope and a three-puncture technique with the operating channel of the laparoscope used for lysis of adhesions and/or ovarian mobilization. Recovery rates are between 85 and 90 percent using this technique.[4]

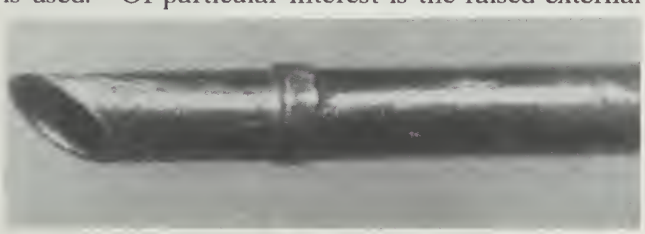


Figure 1. Needle with 45° bevel and elevated band used for laparscopec oocyte retriecal.

In addition, in The Johns Hopkins program, we offer operative laparoscopy to patients during the IVF procedure, using two- or three-puncture system. Lysis of adhesions, tubal and ovarian mobilization, and fulguration of ectopic endometrial tissue may be performed at the same time as the IVF attempt. This reparative surgery significantly increases conception rates over those for IVF alone. We have examined the rate of treatment independent pregnancies after IVF and reparative surgery, confirming the suspicion that the rate of spontaneous conception is increased.[7]

Ultrasound-Directed Follicular Puncture The major technique in use for IVF oocyte retrieval is ultrasonographically guided follicular puncture, which is especially useful when the ovaries are inaccessible to the laparoscope due to severe adhesive distortion.[8,9] Real-time ultrasonography and the modern sector scanner, adapted for use in oocyte retrievals, offer several advantages over laparoscopy, including use of local anesthesia and elimination of possible adverse effects on oocytes from the gas phase of CO_2 insufflation during laparoscopy.[10] In addition, patients more readily accept ultrasonographically guided retrieval than other techniques because it is noninvasive and may allow for more repeat attempts at IVF.

Ultrasonographically guided retrieval may be performed through a transvesical approach or through a relatively new transvaginal approach.[11] Using a transvaginal sector scanner, the latter precisely locates follicles with an exact needle-guided puncture line.

Transvaginal Puncture with Ultrasound Guidance Precise localization of follicles with an exact needle-guided puncture line may be achieved with the transvaginal sector scanner. The viewing capacity of this scanner is approximately a 240° angle. The needle guide is placed at an angle of 15° toward the scanner axis, and lines tracing the indicated direction of the needle in the sound field are fed into the scanner and are marked on the monitor by an electronic line (Figure 2). Follicular puncture with the vaginal scanner may be carried out with an empty bladder and appears to carry less risk than a freehand technique. Preliminary results from several centers report retrieval rates between 80 to 90 percent per follicle with this method. The possibility of infection of the culture medium from

a transvaginal route appears to be minimal. Ultrasound-directed vaginal retrieval has been used in The Johns Hopkins Program since 1988. At present 95 percent of patients have oocytes retrieved through this approach.

Laboratory Management and Embryo Transfer

Oocytes collected at operative or ultrasonographically guided retrieval are evaluated immediately in the laboratory for degree of maturity and morphology (Figure 3). Mature eggs are allowed to remain in the culture media for four to six hours and then inseminated with approximately 50,000 motile sperm per egg. Oocytes judged to be immature are incubated for approximately 18 to 24 hours and then inseminated. Inseminated oocytes are evaluated twice daily for evidence of fertilization, second polar body extrusion, pronuclear development, and cleavage. Fertilized and cleaving embryos are transferred to the patient 48 to 72 hours after retrieval (Figure 4). The embryos are transferred to the uterus through a small catheter inserted through the cervix.

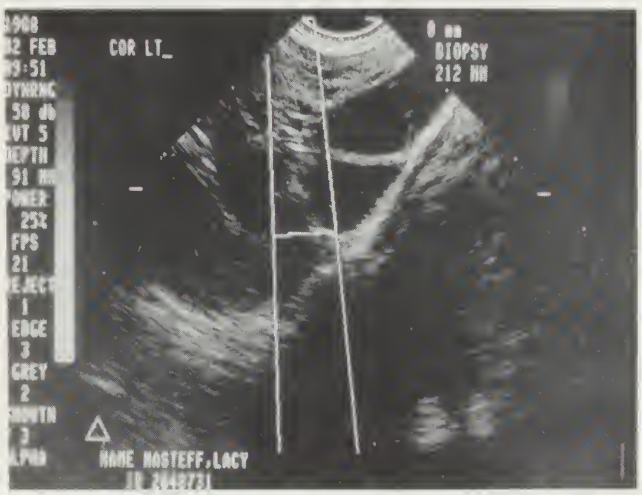


Figure 2. Ultrasound needle localization line with transvaginal sector scanner.

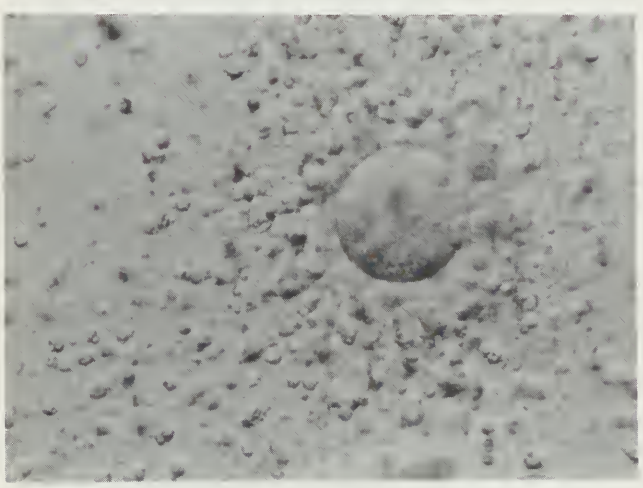


Figure 3. Mature human oocyte 15 minutes after aspiration.

Depending on the number of embryos transferred, pregnancy success rates per embryo transfer have ranged from 10 percent to 30 percent. The pregnancy rate is approximately 10 percent when one embryo is transferred, but with three to four cleaving embryos, rates are currently 26 percent to 30 percent per cycle.

New Techniques: Cryopreservation of Oocytes and Embryos

The use of follicle-stimulating agents to produce a large number of eggs for aspiration has raised a question: What should be done with the excess eggs or embryos? Options include[12]

- limiting the number of eggs recovered or inseminated
- transferring all embryos
- discarding eggs or embryos not used for transfer
- preserving eggs or embryos for future transfer

The latter possibility appears to be the most constructive. It offers the patient the advantage of embryo transfer at a later natural cycle. Successful pregnancies have resulted from transfer of cryopreserved and thawed embryos, with pregnancy rates ranging from 8 to 10 percent of patients who have had embryos frozen. The degree of embryo survival is associated with the cell stage at which the embryo is frozen; embryos at earlier stages of development (such as two cells) are more susceptible to damage by cryoprotectants and ice formation.[13,14] Cryopreservation is thus a reasonable answer to the question of what to do with excess oocytes and embryos obtained for IVF-ET. In addition attempts at other alternate forms of reproduction, including donor eggs and embryos, may be implemented.

Thus cryopreservation of eggs and embryos provides a reasonable solution to obtaining oocytes and embryos in excess of those desired for transfer during IVF. This process would overcome the difficulties in-

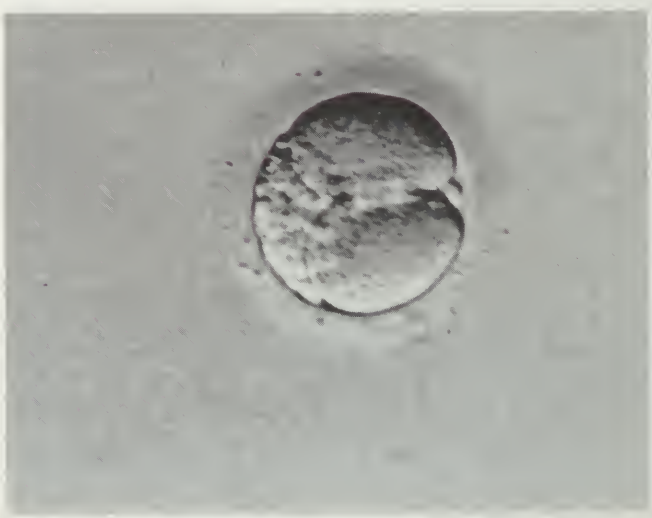


Figure 4. 2-cell human embryo prior to transfer.

volved in synchronizing donors and recipients in egg and embryo donor programs. Cryopreservation also may resolve the serious problems associated with oophorectomy and pelvic radiation or chemotherapy for patients desirous of preserving fertility.[15] It also raises the possibility of establishing a genetic diagnosis on a single blastomere, while leaving the remaining blastomeres of an embryo intact, at a stage when normal development will not be impaired by blastomere biopsy.

Success Rates and Pregnancy Outcome

The pregnancy rate per IVF attempt (15 to 25 percent) does not differ strikingly from that for each attempt at normal reproduction. If 100 couples were attempting pregnancy with unprotected intercourse in any one month of the year, only 25 of those couples would be expected to conceive. Factors as yet unknown may be involved in the selection process of gamete fertilization or implantation with one cycle of exposure. In addition, alteration of the uterine environment by the IVF follicular stimulation techniques may induce either a stage of endometrial advancement or luteal phase asynchrony, which may make embryo implantation difficult.

The risk of poor pregnancy outcome is only slightly higher in women who conceive through IVF-ET than in other women. The spontaneous miscarriage rate is approximately 30 percent per IVF cycle. This relatively high rate may be explained in part by the earlier detection of pregnancy in IVF patients.

The patient who conceives by IVF-ET is not considered to be at high risk unless she has some other obstetric risk factor. In many IVF programs including ours, the successful IVF patient may be managed by the referring obstetrician, who checks the progress of the pregnancy with ultrasonography as needed and refers the patient for amniocentesis if indicted for maternal age.

Certain patients are less likely to conceive through IVF than others: those with pelvic adhesions, limited ovarian function, multiple infertility factors, or advanced maternal age. The pregnancy rate in patients between the ages of 35 and 40 compares to that of patients 30 to 35 years of age, prompting research into aging as a factor in reproduction.

The GIFT Technique

Current methodologies of *in vitro* fertilization have fostered the development of a technique that may be an alternative to IVF-ET in cases in which tubal patency has been demonstrated.[16] Gamete Intrafallopian Transfer (GIFT) involves placement of both gametes (sperm and oocytes) into the fallopian tube through laparoscopy or minilaparotomy. Induction of follicular development is performed with an hMG/hCG regimen. Oocytes are obtained by laparoscopic follicular aspiration, and semen is prepared to yield a concentration of 100,000 washed sperm per microliter. On completion of follicular aspiration and oocyte inspection, the gametes are loaded into a catheter that is threaded into the aspirating needle. The needle is inserted into the operating channel of the laparoscope. The catheter tip is placed into the fimbriated end of the fallopian tube to a distance of approximately 1.5 cm, and the contents of the catheter are injected (Figure 5). The first GIFT procedure reported was successful, resulting in term twin females. The pregnancy rate at present is 35 percent. The GIFT technique may be a more physiologic approach than IVF since the ampullary region of the fallopian tube is the normal site of fertilization in the human.[17] Patients with unexplained infertility or mild endometriosis may be candidates for this procedure, since in these cases failure of spermatozoa to reach the tube may be the etiology of the infertility. A large series of studies of the GIFT procedure are in progress.

Alternate Forms of Reproduction

Basic IVF-ET is now accepted as a standard practice and can be used for the varied indications of intractable infertility. The concept of IVF has opened avenues of treatment for couples with a variety of previously uncorrectable problems such as absence of sperm, oocytes, or even the uterus or various combinations of these problems. Alternate avenues of IVF-ET include donation of sperm, oocytes, or embryos; cryopreservation of oocytes or embryos; or use of a surrogate uterus for gestation.

Many investigative observations of the interactions of the human sperm and oocyte and the early phases of human development have sprung from this technology; genetic analysis of the human blastomere, or blastomere biopsy, is one. This procedure presents unprecedented ethical dilemmas and responsibilities, but the information afforded by the study of human (rather than animal) cellular material may be most vital in the fields of genetic research and infertility.

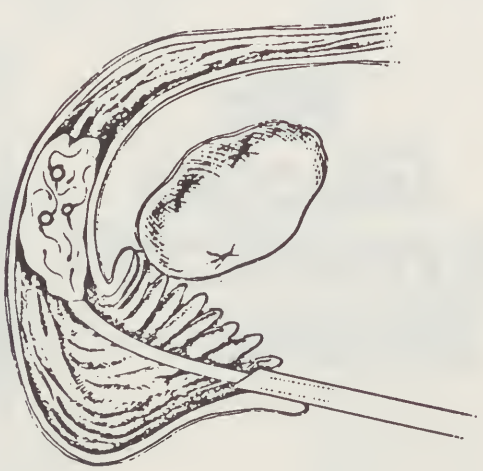


Figure 5. The GIFT procedure: cannulation of the fallopian tube.

New research and technologies will help more patients who were previously thought to be intractably infertile.

References

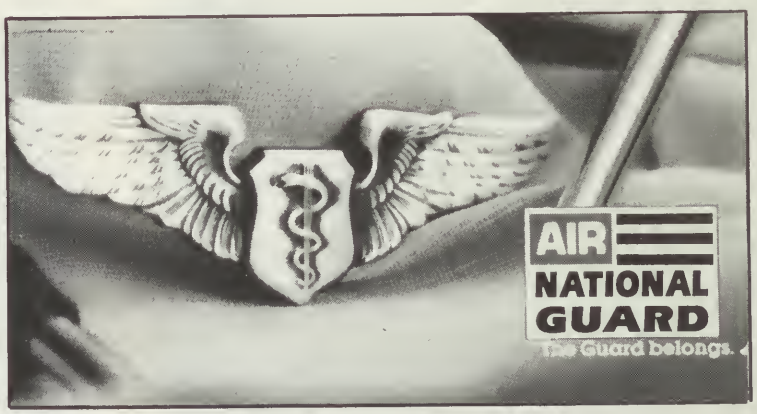
1. Steptoe PC, Edwards RC. Birth after reimplantation of a human embryo. Lancet 1978;2:366.
2. Damewood MD, Wallach EE. Latest techniques improve IVF success rates. Contemp OB/GYN, Technology, 1988.
3. Fagan PJ, Schmidt CW Jr., Rock JA, Damewood MD, Halle EW, Wise TN. Sexual functioning in in vitro fertilization couples. Fertil Steril 1986;46:668.
4. Damewood MD, Wallach EE. IVF update. Postgrad Obstet Gynecol 1986;6:1.
5. Bernardus RE, Jones GS, Acosta AA et al. The significance of the ration infollicle-stimulation hormone and luteinizing hormone in induction of multiple follicular growth. Fertil Steril 1985;43:373.
6. Jones HW, Acosta AA, Garcia J. A technique for the aspiration of oocytes from human ovarian follicles. Fertil Steril 1982;37:26.
7. Damewood MD, Rock JA. Treatment independent pregnancy with operative laparoscopy for endometriosis in an in vitro fertilization program. Fertil Steril 1988;50:463.
8. Feichtinger W, Kemeter P. Laparoscopic or ultrasonically guided follicle aspiration for in vitro fertilization? J In Vitro Fert Embryo Transfer 1984;1:244.
9. Wikland M, Nilsson L, Hansson R, Hamberger L, Janson PO. Collection of human oocytes by the use of sonography. Fertil Steril 1983;39:603.
10. Lenz S, Lauritsen JG. Ultrasonically guided percutaneous aspiration of human follicles under local anesthesia: a new method of collecting oocytes for in vitro fertilization. Fertil Steril 1982;38:673.
11. Dellenbach P, Nisand I, Moreau L, Feger B, Plumere C, Gerlinger P. Transvaginal sonographically controlled follicle puncture for oocyte retrieval. Fertil Steril 1985;44:656.
12. Damewood, MD, ed. The Johns Hopkins Handbook of In Vitro Fertilization and Assisted Reproductive Technologies. Boston: Little, Brown and Company. (in press)
13. Trounson, A. Preservation of human eggs and embryos. Fertil Steril 1986;46:1.
14. Freeman L, Trounson A, Kirby C. Cryopreservation of human embryos: Progress on the clinical use of the technique in human in vitro fertilization. J In Vitro Fertil Embryo Transfer 1986;3:53.
15. Damewood MD, Grochow LB. Prospects for fertility after chemotherapy or radiation for neoplastic disease. Fertil Steril 1986;45:443.
16. Asch RH, Balmaceda JP, Ellsworth LR, Wong PC. Gamete intra-fallopian transfer (GIFT): A new treatment for infertility. Int J Fertil 1985;30:41.
17. Damewood MD. The role of the new reproductive technologies including IVF and GIFT in endometriosis. Obstet Gynecol Clin North Am 1989;16:179.

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  - *Thomas Reardon* MD, AMA - **"Physician Payment, Potential Changes: Issues and Answers"**
  - *Palma E. Formica* MD, AMA - **"Long Range Plans and Expectations"**
  - *Ross N. Rubin* Esq, AMA, *John Sewerd* MD, AMA and *John Zapp* DDS, AMA - **"Legislative Affairs"**
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3:45 - 5:45 p.m.

- ☐ "Examination of the Expert Medical Witness: A Mock Trial"
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7:15 - 8:45 a.m.

- ☐ Prayer Breakfast - "How Long Have You Had This?"

8:45 - 10:15 a.m.

- ☐ "Physician Character & Personality Traits That Predict Less Than Adequate Practice Standards"
- ☐ "AIDS - A Medical and Legal Review and Update for the 1990s"
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2:00 - 3:30

- ☐ "Managing Multiple Risks in Cardiovascular Diseases"
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- ☐ "The Physician as Gatekeeper - A Professional Contradiction"

8:45 - 12:15 p.m.

- ☐ "The Great Cholesterol Controversies"

10:45 - 12:15 p.m.

- ☐ "Tobacco Dependence as an Addiction"
- ☐ "Movement Disorders in Primary Care and Psychiatry"
- ☐ "The Care of the Alzheimers Patient After Diagnosis"
- ☐ "Panel on Issues in Managed Care in Maryland"

3:45 - 5:45 p.m.

- ☐ "Stroke Care in the 90s: An Update on the Management of Acute Stroke and Stroke Rehabilitation"
- ☐ "Analysis of Physician Practice Variations - Implications for the 1990s"
- ☐ "Hepatobiliary Imaging in Noncalculus Hepatobiliary Disease with Emphasis on Surgically Correctable Disorders"
- ☐ "Young Physicians in the 1990s"
- ☐ "Breast Cancer: The Value of Mammography"

Friday, May 11,1990

8:45 - 10:15 a.m.

- ☐ "Findings of the Statewide Quality Assurance Committee"
- ☐ "Common Sense Approach to the Management of Hypertension"
- ☐ "High Risk Infants"
- ☐ "Modern Management of Communicable Diseases"
- ☐ "Using the Computer for Your Continuing Medical Education"

8:45 - 12:15 p.m.

- ☐ "Symposium - What to Expect in the 1990s" (Physician Payment, Long Range Planning, Legislative Affairs)

10:45 - 12:15 p.m.

- ☐ "Recognition & Management of Melanoma and its Precursors"
- ☐ "Environmental and Occupational Health Threats"
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Bone Marrow Transplantation in Lysosomal Storage Diseases: A Prelude to Gene-Insertion Therapy

Andrew M. Yeager MD

From The Oncology Center and the Departments of Pediatrics and Neurology. Dr. Yeager is Pediatrician-in-Charge, The Johns Hopkins Bone Marrow Transplantation Program; Associate Professor of Oncology, Pediatrics, and Neurology, The Johns Hopkins University School of Medicine, Baltimore.

Supported in part by grant nos. RO1 NS14097 and P01 CA15396 from the National Institutes of Health, Department of Health and Human Services, Bethesda, MD, and by Basil O'Connor Starter Research Grant no. 5-485 from the March of Dimes Birth Defects Foundation, White Plains, NY. *Reprints: Dr. A.M. Yeager, Room 3-127, The Johns Hopkins Oncology Center, 600 N. Wolfe St., Baltimore, MD 21205.*

Allogeneic bone marrow transplantation is a therapeutic option for enzyme replacement in children with lysosomal storage diseases, for which no current conventional treatments are curative. Although marrow allografting is costly, intensive, and not risk free, strides are being made in the management and prevention of procedure-related complications.

Human lysosomal storage diseases include the mucopolysaccharidoses (Hurler, Hunter, and Maroteaux-Lamy syndromes) and the sphinogolipidoses (Gaucher disease, metachromatic leukodystrophy). These heritable conditions, usually autosomal recessive or linked to the X chromosome, are caused by deficiencies of specific acid hydrolases normally present in the lysosomes and are associated with significant morbidity and mortality in affected children. Manifestations of storage diseases are in large part attributable to accumulation in various tissues and organs of the substrate (or derivatives thereof), that otherwise would be degraded by the enzyme in which the patient is deficient. Depending on the lysosomal hydrolase deficiency and the nature of the substrate that accumulates, there may be organ enlargement (for example, hepatosplenomegaly), corneal clouding, limitation of joint mobility, or skeletal abnormalities. Demyelinating neuropathy may be a feature in some sphingolipid storage diseases; the loss of myelin sheaths is due to toxic effects of substrate derivatives such as psychosine in Krabbe leukodystrophy, leading to destruction of oligodendroglial and Schwann cells. The management of children with lysosmal hydrolase deficiency states has been limited to symptomatic supportive care. Many affected children die with progressive disease within the first decade of life; patients who reach adulthood are often profoundly impaired because of the multisystem deterioration.

We present the rationale for enzyme replacement therapy in these devastating storage diseases and the application of cellular grafts as a source of hydrolase in these conditions. We also focus on the use of bone marrow transplantation (BMT) as a self-renewing source of lysosomal enzyme.

Enzyme Replacement in Storage Diseases

Although numerous *in vitro* studies have demonstrated the uptake of exogenous hydrolases by enzymatically deficient cells, clinical trials of short-term intravenous enzyme infusion in various storage diseases in general have been unsuccessful. Several possible reasons for the failure of enzyme-replacement therapy in these conditions are: the lack of sufficient quantities of purified nonimmunogenic human hydrolase; the inability to attain normal plasma levels for prolonged periods of time; the rapid hepatic clearance of exogenous hydrolase from the circulation; and the impermeability of the blood-brain barrier to even therapeutic levels of enzyme in the plasma.[1] Another therapeutic alternative to enzyme infusion in storage diseases is to provide a tissue allograft from an enzymatically normal donor, as a viable cellular source of the deficient hydrolase. Unfortunately, attempts at enzyme replacement by allografts of normal skin, cultured fibroblasts, or amniotic epithelium at best have led to transient biochemical alterations but no objective clinical improvement.

Bone Marrow Transplantation: An Overview

Transplantation of bone marrow from a healthy donor (usually a fully histocompatible sib) provides a source of "stem cells," those primitive, pluripotent cells that, with the appropriate factors (such as the marrow microenvironment, stimulatory lymphokines and growth factors, and cellular interactions) will proliferate and differentiate into lymphoid, hematopoietic, and reticuloendothelial cell systems within the recipient.[2] Importantly, the stem cell is also capable of self-renewal and thus provides a sustained source of its own cell population.

After BMT, therefore, the marrow allograft recipient is a "chimera" (taken from the beast of Greek mythology with the head of one animal and the body of another), since the patient's hematopoietic system is of foreign (donor) origin: the circulating erythrocytes, leukocytes, platelets, and lymphocytes of the allogeneic BMT recipient are all donor in origin and type. In addition, monocyte/macrophage-derived cells such as hepatic Kupffer cells, pulmonary alveolar macrophages, and osteoclasts (which resorb and remodel bone) are repopulated with donor-derived cells. Since the normal donor cells also provide a self-renewing cellular source of hydrolase, BMT could be viewed as a form of enzyme replacement therapy in patients with various storage diseases.[3-5] In addition, preclinical studies and preliminary clinical reports suggest that phagocytic mononuclear cells in the central nervous system (CNS) also may be replaced by donor cells after BMT; this finding is especially relevant to the possible therapeutic role of BMT in the treatment of lysosomal storage diseases with CNS manifestations.

Satisfactory allogeneic BMT is dependent on two factors.[1] First, there must be a suitably histocompatible "match" between donor and recipient to minimize the risks of graft rejection or, more commonly, severe graft-versus-host disease (GVHD). A "perfect match" between donor and recipient is defined as identity of the HLA antigens (HLA-A, -B, -C, and -D/DR/DQ) by serological testing and by lack of reactivity between donor and recipient lymphocytes after co-incubation, that is, a negative mixed lymphocyte culture (MLC). In general, healthy sibs who are fully matched at the HLA loci and who demonstrate a negative MLC with the recipient are the preferred donors; in practice, there is a 25 to 40 percent chance that a sib is histocompatible. Although results of allogeneic BMT with related donors who are mismatched at up to one HLA locus are good, these transplants carry slightly higher risks of marrow graft rejection and GVHD, as indicated above. A great deal of interest recently has been directed in unrelated volunteer marrow donor registries, and the preliminary results of allografting with histocompatible unrelated donors are likewise encouraging.

The second requirement for successful BMT in genetic diseases is an adequate preparative regimen, that is, the pretransplant conditioning given to the marrow transplant recipient. The preparative regimen serves a dual purpose. First, it provides adequate, intensive immunosuppression to prevent rejection of the allograft by the host immune system, analogous to (but much more intensive than) the immunosuppression employed in solid organ transplantation. In general, high-dose intravenous cyclophosphamide (Cytoxan®) is used for this purpose. Second, the preparative regimen must ablate the host marrow to provide physical space and, therefore, a proliferative advantage to the infused donor stem cells. Methods to "displace" the host bone marrow - essentially, to induce marrow aplasia by elimination of host stem cells and committed hematopoietic progenitors. Total body irradiation often has been used for this purpose. Under the leadership of Dr. George Santos, Director of The Johns Hopkins Bone Marrow Transplantation Program, a preparative regimen that uses marrow-lethal chemotherapy instead of total body irradiation has been developed. This regimen, which consists of high-dose busulfan (Myleran®) and cyclophosphamide, has been effective in pre-BMT conditioning of patients with acute myeloid leukemia[6] and also has been used as an immunosuppressive/myeloablative regimen in children receiving allogeneic marrow grafts for beta-thalassemia major (Cooley's anemia).[7]

To prevent the development of acute graft-versus-host disease (GVHD), a consequence of disparity at minor histocompatibility antigens (which are not assessed by serologic HLA typing or by the MLC), post-BMT immunosuppression is warranted. Prophylaxis against acute GVHD facilitates development of tolerance of the proliferating donor immune system to the host tissues. Currently most BMT centers use the potent immunsuppressive agent cyclosporine (alone

or in combination with other agents such as low-dose methotrexate or corticosteroids) for several months after BMT to prevent or treat acute GVHD.

Allogeneic BMT has demonstrated therapeutic effectiveness in severe aplastic anemia and other bone marrow failure states and in hematologic neoplasia, such as acute leukemias and chronic myelogenous leukemia. In addition, marrow allografts may be curative in cellular immunodeficiency states such as the severe combine immunodeficiency and Wiskott-Aldrich syndromes by repopulation of the deficient or defective lymphoid system. Nevertheless, allogeneic BMT is not a risk-free procedure. Even with an allogeneic marrow transplant from a histocompatible sib donor, there is a 25 to 35 percent chance of death from transplant related complications, chief among them acute and chronic GVHD and the development of fatal opportunistic infections such as cytomegalovirus interstitial pneumonitis. This must be factored into the risk-benefit analyses when one considers BMT as a therapeutic option in human diseases.

BMT in Storage Diseases: Lessons from the Lab

A major drawback to the evaluation of the potential effectiveness of BMT in lysosomal storage diseases has been the lack of authentic animal models of these disorders. The ability of allogeneic BMT to normalize levels of hydrolase in tissues outside the CNS was initially demonstrated by Slavin and colleagues in the beta-glucuronidase-deficient mouse, but extrapolation of these data to the clinical situation are limited because beta-glucuronidase deficient mice do not have clinical manifestations of storage disease and have a normal lifespan even without marrow grafting.

In 1980, investigators at The Jackson Laboratory described a new autosomal recessive mutation called the "twitcher" mouse. Affected animals appear normal at birth but develop truncal tremor and limb paralysis by three to four weeks of age and die with failure to thrive and progressive neurodegeneration by five to seven weeks of age. Neuropathological abnormalities in twitcher mice include total demyelination of peripheral nerves and presence of characteristic "globoid cells" (phagocytic cells that contain myelin degradation products) within the central nervous system. Biochemically, these mice lack the lysosomal hydrolase galactosylceramidase, which is essential for myelin synthesis. In addition, psychosine (galactosylsphingosine) accumulates in twitcher mouse tissues; this compound is highly cytotoxic, especially to oligodendroglia and Schwann cells that are responsible for maintenance of myelin sheaths. From clinical, histopathological, and biochemical standpoints, therefore, the twitcher mutant appears to be an authentic preclinical model of the human sphingolipidosis Krabbe disease (galactosylceramidase deficiency; globoid cell leukodystrophy), and an ideal model in which to study the effects of enzyme replacement through BMT.

Beginning in 1982, our laboratory has undertaken comprehensive investigations of BMT in the twitcher mouse model of storage disease. Initially we demonstrated that BMT from enzymatically normal mice in twitchers with advanced neurodegeneration did not prolong survival, suggesting that the optimal time for intervention was in presymptomatic mice. Indeed, when BMT was carried out in 10-day-old twitcher mice (identified as enzymatically deficient by galactosylceramidase assays on homogenates of clipped tail tips), there was a two- to threefold prolongation of survival (90 to 120 days, versus 35 to 45 days in untransplanted animals).[8] Transplanted twitcher mice did not develop the characteristic hindlimb paralysis seen in untreated mice and also had improvement in their gait, foraging, and grooming behaviors. Histopathological examination indicated that a gradual remyelination occurred in the sciatic nerves of twitcher mice two to three months after BMT.[8] These neuropathological observations were then correlated with neurophysiological studies, which indicated that BMT stabilized sciatic nerve motor conduction velocities in twitchers.

The issue of entry of donor-derived enzyme and/or donor mononuclear cells into the CNS is especially critical in considering BMT for storage diseases with central nervous system manifestations. Using the twitcher mouse BMT model system, we recently found that galactosylceramidase appears in various twitcher mouse tissues, including the CNS, after transplantation of enzymatically normal donor bone marrow.[9] In addition to providing enzyme replacement in the CNS of twitcher mice, BMT also stabilized the levels of psychosine (the major toxic metabolite in globoid cell leukodystrophy) in the brains of transplanted twitcher mice to approximately one tenth of the levels observed in untreated animals.[9] Other investigators recently used our twitcher transplant model to demonstrate the appearance of donor mononuclear cells in the brains of twitcher mice after BMT, indicating a trafficking of donor cells across the blood-brain barrier.

Favorable effects of BMT from enzymatically normal donors subsequently have been reported in several other animal storage diseases, including feline mucopolysaccharidosis VI (a model of the Maroteaux-Lamy syndrome), canine mucopolysaccharidosis I (a model of the Hurler syndrome), and canine fucosidosis. Taken together, laboratory observations in the twitcher mouse and in these other animal model BMT systems are especially encouraging for the clinical application of BMT in children with lysosomal storage diseases.

Results of Clinical BMT

Initial reports from the Westminster (UK) marrow transplant program in 1981 indicated that BMT from normal related donors could provide enzyme replacement and favorable effects on clinical manifestations in children with mucopolysaccharidosis I (MPS I; the

Hurler syndrome),[10,11] and this encouraging experience has been confirmed at other transplant centers. After BMT, children with MPS I have had resolution of hepatosplenomegaly and corneal clouding and improvement in joint mobility. Biochemically, appearance of the deficient enzyme (alpha-L-iduronidase) in the donor-derived leukocytes was followed, several months later, by normalization of urinary excretion of substrate (glycosaminoglycans). At the minimum, children with MPS I have had stabilization of developmental quotient; in several instances, there even has been significant improvement.[12] Other mucopolysaccharidoses without CNS involvement, such as the Maroteaux-Lamy syndrome (MPS VI), have been successfully treated by allogeneic BMT[12,13] in these cases, the associated skeletal abnormalities may persist for several years after BMT before improvement.[13] It is not clear that severe mental retardation can be reversed in children with mucopolysaccharidoses in which the predominant manifestations are in the CNS (for example, Sanfilippo syndrome [MPS III]), although biochemical improvement (that is, appearance of enzyme, normalized urinary substrate excretion) will be observed after BMT in such patients.

Several sphingolipid storage diseases such as metachromatic leukodystrophy (MLD; arylsulfatase A deficiency) and Gaucher disease (glucocerebrosidase deficiency) also are characterized by clinical manifestations related to abnormal substrate accumulation (for example, sulfatide or glucocerebroside) within tissues. In MLD, as in the twitcher murine model, demyelination of peripheral nerves takes place. The favorable effects of BMT in the twitcher mouse appeared to justify judicious, critical studies of clinical BMT in MLD and other sphingolipidoses.

At The Johns Hopkins Oncology Center we have conducted allogeneic BMT from histocompatible related donors in two children with advanced MLD, using a preparative regimen of high-dose busulfan and cyclophosphamide. At the time of transplant, each child had substantial loss of motor skills and was unable to walk due to demyelinating neuropathy. In one of these patients, a two and one-half year-old girl, arylsulfatase A activity in the peripheral blood leukocytes was normal by three weeks after BMT; unfortunately, the patient died 50 days after BMT from overwhelming pneumonitis due to adenovirus. In the brief posttransplant period, we did not observe any objective clinical improvement in this child. The second patient, a five-year-old boy, also had appearance of donor-derived enzyme in the circulation within the first month after BMT; approximately 15 months after transplant, urinary sulfatide excretion decreased to normal levels. This child's motor nerve conduction velocities have stabilized, and he now has some movement and function in both upper and lower extremities. In addition, he has had no further deterioration in mental status.

Other centers have shown clinical and biochemical improvement in children who have received allogeneic BMT for MLD[14,15] or for Gaucher disease.[16,17] However, our observations and those of others strongly indicate that allogeneic BMT has very limited value when carried out in patients with advanced deterioration attributable to the storage disease; the biochemical success does not correlate with reversal of significant organ damage. Conversely, the pioneering studies of Krivit and colleagues at the University of Minnesota[15] demonstrated that allogeneic BMT can actually prevent the neurological deterioration in MLD when the transplant is carried out at the earliest stages of disease, ideally in a presymptomatic patient. Indeed, this setting of "minimal residual disease" represents the best opportunity for BMT to provide effective tissue repair in storage diseases.

Speculations for the Future

Allogeneic bone marrow transplantation represents a crude form of genetic therapy in storage diseases by replacing enzyme-deficient cells with normal ones. Rapid advances in molecular genetics include the genomic localization and cloning of several lysosomal hydrolases, as well as techniques for the introduction into cells and intracellular expression of exogenous genetic material. Refinements and combination of these highly sophisticated technologies will form the cornerstone for the ultimate somatic-cell therapy in human storage diseases by replacement of the specific cloned lysosomal hydrolase gene that is deficient or defective in the patient. It is envisioned that gene-replacement therapy will entail introduction of the normal gene into the patient's own (autologous) bone marrow cells and the intravenous infusion of these genetically modified stem cells into the patient. The need for and choice of a pre-autograft preparative regimen in children undergoing this gene-replacement therapy is unknown, but it is probable that some form of space making (for example, high-dose busulfan or total body irradiation) will be required to allow engraftment and proliferation of autologous stem cells into which the normal lysosomal hydrolase genes have been introduced.

Summary

Allogeneic BMT is now a therapeutic option for enzyme replacement in children with lysosomal storage diseases, for which no conventional treatments are curative. The best results are to be obtained in children who are asymptomatic or who have only the earliest and most subtle manifestations of disease; there is no benefit of BMT in patients with severe, progressive organ or tissue damage (for example, paralysis in the case of metachromatic leukodystrophy). This highly sophisticated procedure is available at only a limited number of specialized medical centers at this time. Marrow allografting is

costly, intensive, and not free of risks, but strides are being made in the management and prevention of procedure-related complications such as graft-versus-host disease and opportunistic infections. Use of unrelated marrow donor registries may allow more children with storage diseases to receive BMTs. Careful clinical studies of BMT in genetic diseases, with complementary comprehensive preclinical laboratory evaluations in animal models of disease and with particular attention to the long-term results in children who have received BMTs, will provide principles for the rational implementation of gene-replacement therapy in these otherwise devastating metabolic disorders of childhood.

References

1. Brady RO, Barranger JA. Therapeutic strategies for lipid storage diseases. Trends Neurol Sci 1981;4:265-67.
2. Yeager AM. Bone marrow transplantation in children. Pediatr Annals 1988;17:694-714.
3. Hobbs JR. Bone marrow transplantation for inborn errors. Lancet 1981;2:735-39.
4. Parkman R. The application of bone marrow transplantation to the treatment of genetic diseases. Science 1986;232:1373-78.
5. Krivit W, Whitley CB. Bone marrow transplantation for genetic diseases. N Engl J Med 1987;316:1085-87.
6. Santos GW, Tutschka PJ, Brookmeyer R et al. Marrow transplantation for acute nonlymphocytic leukemia after treatment with busulfan and cyclophosphamide. N Engl J Med 1983;309:1347-53.
7. Lucarelli G, Galimberti M, Polchi P et al. Marrow transplantation in patients with advanced thalassemia. N Engl J Med 1987; 316:1050-55.
8. Yeager AM, Brennan S, Tiffany C et al. Prolonged survival and remyelination after hematopoietic cell transplantation in the twitcher mouse. Science 1984;225:1052-54.
9. Ichioka T, Kishimoto Y, Brennan S et al. Hematopoietic cell transplantation in murine globoid cell leukodystrophy (the twitcher mouse): effects on levels of galactosylceramidase, psychosine, and galactocerebrosides. Proc Natl Acad Sci USA 1987;84:4259-63.
10. Hobbs JR, Hugh-Jones K, Barrett AJ et al. Reversal of clinical features of Hurler's disease and biochemical improvement after treatment by bone marrow transplantation. Lancet 1981;2:709-12.
11. Hobbs JR, Hugh-Jones K, James DCO et al. Bone marrow transplantation has corrected the systemic disease of 3 patients with Hurler's mucopolysaccharidosis. Exp Hematol 1982;10 (Suppl 10):48-49.
12. Hobbs JR. Correction of 34 genetic diseases by displacement bone marrow transplantation. Plasma Ther Transfus Technol 1985;6:221-46.
13. Krivit W, Pierpont ME, Ayaz K et al. Bone marrow transplantation in the Maroteaux-Lamy syndrome. N Engl J Med 1984;311:1606-11.
14. Bayever E, Ladisch S, Philippart M et al. Bone marrow transplantation for metachromatic leukodystrophy. Lancet 1985;2:471-73.
15. Krivit W, Lipton ME, Lockman LA et al. Prevention of deterioration in metachromatic leukodystrophy by bone marrow transplantation. Am J Med Sci 1987;294:80-85.
16. Rappeport JM, Ginns EI. Bone marrow transplantation in severe Gaucher's disease. N Engl J Med 1984;311:84-88.
17. Lundgren G, Eriksson A, Groth C-G et al. Bone marrow transplantation in juvenile Gaucher's disease. Exp Hematol 1984;12 (Suppl 15):99-100.

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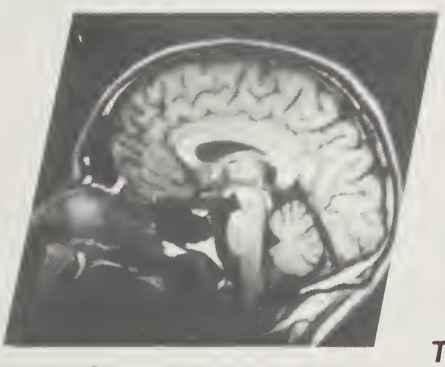
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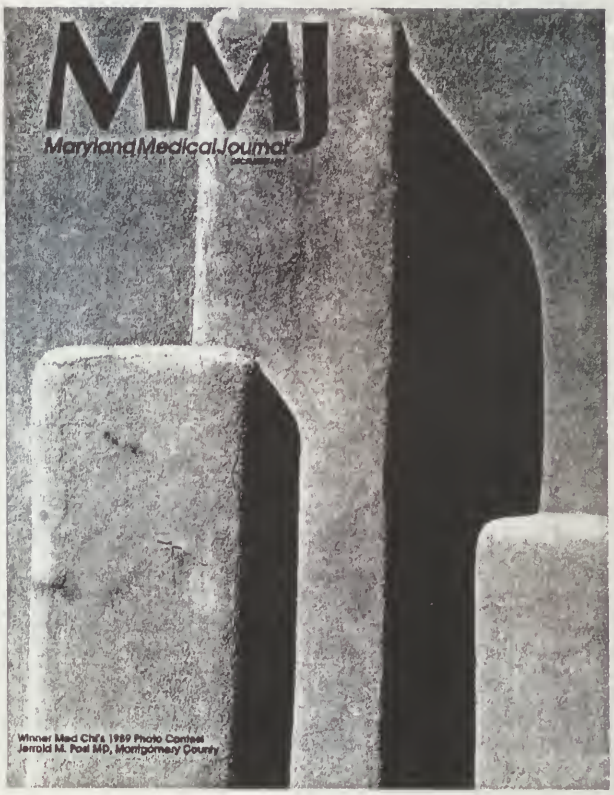
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Laser Therapy in the Treatment Of Congenital Vascular Abnormalities

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Portwine stains, especially on the face, have serious psychological and emotional impact for affected children. Laser therapy has been the only effective means for treating these lesions. The argon laser has been the mainstay, but more recently the flashlamp-pumped pulsed dye laser has added significantly to the management of portwine stains as well as to the effective treatment of other vascular lesions such as telangiectasias and angiomas.

Congenital vascular abnormalities are found in 20 to 40 percent of newborns and form a wide spectrum of lesions. Hemangiomas constitute a significant proportion of these. The incidence of strawberry hemangiomas has been estimated to be 2.6 percent and that of portwine stains 0.3 percent.[1] The natural history of strawberry hemangiomas is one of eventual spontaneous resolution with some exceptions; in contrast, portwine stains are permanent. Because the majority of them are located on the face they cause significant disfigurement leading to social stigmatization of young children, which can have severe psychological and emotional impact.

Before the availability of newer laser systems, various approaches were tried to camouflage or treat these lesions including the skillful use of makeup, tattooing of the overlying skin with pigments to achieve a normal skin tone, cryotherapy, grenz rays, ionizing radiation with thorium X, and radical surgical resection followed by reconstruction. Each was less than ideal, and the search for better tools led to the development of laser systems. A variety of lasers have been evaluated for the treatment of portwine stains.

Principles and Mechanism

The ideal laser should produce irreversible destruction of the abnormal blood vessels of a portwine stain with no damage to other structures, without scarring or other adverse sequelae, and with the final result of normal skin. It is this goal that has led to the continuing search for better laser systems.

The principle behind the use of lasers is selective destruction of a target by selective absorption of laser energy. To achieve this the wavelength of the laser energy must correspond to the wavelength most selectively absorbed by the target. (The wavelength most selectively absorbed must be differentiated from the one best absorbed. The wavelength best absorbed by a given target also may be absorbed significantly by other targets leading to interference with energy delivery to the target.) Therefore, to obtain selective destruction of the abnormal vessels of the portwine stain the laser must use a wavelength that is selectively absorbed by the ectatic vessels.

Blood vessels contain oxyhemoglobin-containing erythrocytes. Oxyhemoglobin is a chromophore that can be selectively targeted in portwine stains. The absorption curve of oxyhemoglobin (Figure 1) shows three peaks (that is, preferential absorption) at the following wavelengths: a large peak at 418 nm (known as the Soret band) and two smaller peaks at 542 and 577 nm. Laser energy with a wavelength of 418 nm would be most efficiently absorbed by oxyhemoglobin but also would be significantly absorbed by epidermal melanin, leaving much less energy for absorption by oxyhemoglobin. Longer wavelengths are less efficiently absorbed by melanin and therefore would penetrate better. The optimal laser should emit a wavelength of 577 nm to reduce melanin interference while corresponding to an oxyhemoglobin peak.[2]

After absorption by oxyhemoglobin the light energy is converted to thermal energy. Heat generated within erythrocytes leads to their coagulation within the vessels, and conduction of heat to the vessel wall leads to its irreversible damage. Temperatures of 80-85° C are reached, resulting in melting of DNA and membrane disruption, and are regarded as an upper limit for survival of active cells.[3] Continued delivery of laser energy causes heat conduction beyond the confines of the blood vessels resulting in excessive dermal damage and increased risk of scarring. Thus, to maintain selective blood vessel destruction, laser energy must be delivered for a critical time only. Containment of the thermal energy within the target (in this case blood vessels) is known as thermal spatial confinement.[4] The period for which thermal spatial confinement is maintained is known as the thermal relaxation time. The thermal relaxation time for a given blood vessel can be calculated: for blood vessels of a portwine stain it is in the range of 1 to 10 msec, reflecting the variation in the vessels' size. The duration of the pulse of laser energy (pulse width) should therefore be less than 1 msec to obtain thermal spatial confinement.

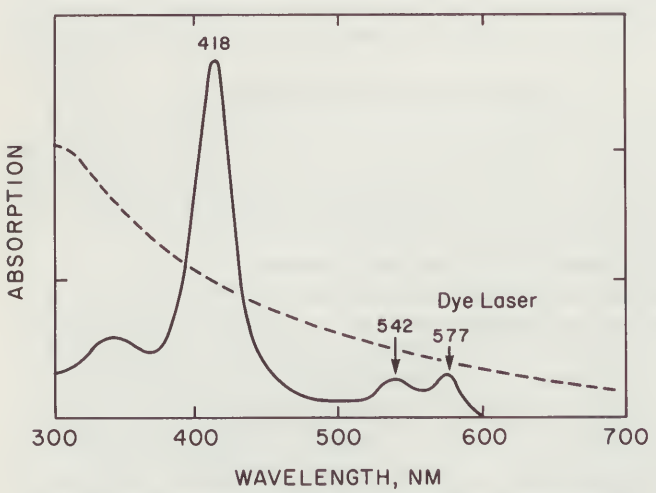


Figure 1. The absorption curves of oxyhemoglobin and melanin Oxyhemoglobin absorbs preferentially wavelengths of 418, 542 and 577 nm. Melanin interference decreases as wavelength increases.

Clinical Experience

The ruby laser was the first available medical laser. It was the first laser used for treating portwine stains but was replaced by the more effective argon, which has been the most widely used. Experience with the argon laser for treatment of portwine stains extends over almost twenty years.

Argon Laser

The argon laser is a low-power continuous-wave laser. The argon laser was chosen for its wavelength. This laser emits blue-green light with wavelengths in the range of 458 nm to 514 nm with 80 percent of the energy contained in the 488 and 514 nm peaks. These wavelengths correspond well to the absorption band of oxyhemoglobin. However, there is significant interference by epidermal melanin, which absorbs in this spectrum as well. The remaining energy is then absorbed by oxyhemoglobin in blood vessels of the portwine stain. The thermal energy generated destroys the blood vessels, but due to lack of thermal spatial confinement (because the energy cannot be pulsed) the epidermis, surrounding dermis, and adnexa also are destroyed by the heat.[5] Thus, nonselective damage occurs, and the wound (essentially a burn) heals in a month with the formation a hypopigmented scar lacking normal skin markings and texture.

Most studies[6-8] have reported good to excellent results in approximately 75 percent of portwine stains treated with the argon laser but usually without complete fading of the lesion. The lesions most likely to be treated successfully with the argon laser are those in older patients (35 years or older), dark red to purple in color, nonblanching, and histologically have at least 15 percent of their vessels filled with red blood cells.[9] Nodules and blebs that develop in portwine stains of older patients frequently respond well to the argon laser. Limitations of this laser have been a 25 percent rate of poor response with an associated 10 to 15 percent incidence of hypertrophic scarring.

The higher incidence of scarring in children along with a lower efficacy for the lighter, more blanching portwine stains usually found in childhood has led to limited use of argon laser with this age group. This has been a significant drawback because children are most affected by the psychological impact of portwine stains, and intervention at an early age would be most beneficial. Another side effect has been hypopigmentation due to interference by melanin absorption of the wave-lengths. The argon laser wavelengths do not penetrate beyond 0.10 mm into the dermis and are not effective for deeper vessels, thus there are only partial responses for deeper lesions.

Carbon Dioxide Laser

Because nonselective thermal damage resulted from the use of the argon laser, the carbon dioxide laser

(which also produced nonselective thermal injury) was evaluated for the treatment of portwine stains. This laser delivers infrared energy with a wavelength of 10,600 nm and is absorbed by water. Cellular water absorbs the energy and is heated to 100° C. Thus, vaporization of the tissue occurs and successive layers are vaporized until the vessels in the portwine stain are destroyed. The resulting wound is a burn, and like the argon laser wound, heals in three to four weeks with a hypopigmented scar that lacks normal skin markings and texture. It is a poor cosmetic result. Complications include hypertrophic scarring, especially in children. Treatment is done on an outpatient basis and requires the use of local anesthesia.

The neodymium-YAG laser and the carbon dioxide laser have been useful adjuncts to the argon laser for treating nodular portwine stains in older patients.[10] Despite the favorable results obtained with the argon laser its limitations led to the continuing search for more effective treatment systems. Newer laser systems have included the copper vapor laser and the flashlamp-pumped pulsed dye laser.

Flashlamp-Pumped Pulsed Tunable Dye Laser

One of the most significant developments in the field of dermatologic laser therapy has been the successful treatment of portwine stains with the flashlamp-pumped pulsed dye laser, specifically developed for the treatment of portwine stains.[11] This laser emits yellow light with a wavelength of 577 nm and a pulse width of 450 microsec. These parameters have brought it close to the ideal laser for the treatment of portwine stains. The wavelength corresponds to an oxyhemoglobin peak with the least melanin interference, and the pulse width is shorter than the thermal relaxation time calculated for vessels in a portwine stain.

After trials with varying pulse widths, an optimal width of 450 microsec was chosen over shorter pulse widths.[4,12] While histologic examination of lesions treated with very short pulse widths shows blood vessel disruption, the injury is reversible. It is possible that healing of abnormal vessels instead of their permanent destruction results in the observed decrease in efficacy with very short pulse widths. Histologic examination of portwine stains immediately after treatment with longer pulse widths reveals the presence of a normal epidermis, a coagulum of erythrocytes, platelets, and fibrin; destruction of endothelial cells, pericytes, and veil cells that constitute the vessel wall; and focal degeneration of perivascular collagen. Irreversible destruction of the vessel wall correlates with good clinical fading of the portwine stain, and lack of significant damage to the epidermis and surrounding dermis correlates with preservation of normal skin texture and color without scarring. The ectatic vessels of the hemangioma are replaced by histologically normal dermal blood vessels.

Treatment can be performed on patients of all ages, including infants only a few months old.[13] Its efficacy and safety in infants is one of its most important advantages because children can be treated before they enter school, preventing the psychological trauma that may develop in such situations. Outpatient treatment does not require anesthesia in adults.[4,14] The discomfort produced by each laser pulse is likened to a pinprick and can be tolerated by most adults and older children. Younger children often are frightened and difficult to control even with the help of their parents. Management of such children remains the subject of controversy: some authorities do not use any local or systemic medication, while other experienced specialists advocate general anesthesia to achieve maximum cooperation and control. Local anesthesia by nerve blocks or subcutaneous infiltration (without epinephrine), with or without sedation, is also useful for any patient who finds the discomfort difficult to tolerate.

Before initiating treatment, test spots are done to determine the lowest effective dose, and the test response is evaluated in three months. The immediate response to treatment is the development of purpura, which correlates with intravascular thrombus formation observed histologically, there being very little or no extravasation of blood. No postoperative care is necessary except in children for whom a dressing provides protection from trauma and resultant scarring. The purpura resolves in two weeks, and makeup can be used carefully to camouflage the purpura, if necessary.

Since lightening occurs over the three months following treatment, treated areas are retreated only after that period. Excellent results are achieved with sequential treatments (Figures 2 and 3) with complete disappearance of the portwine stain, with rare exceptions. The treated area has normal color, skin markings, and texture. Scarring does not occur unless the treated area is traumatized, as it can be in young children.

Portwine stains that have had partial response to treatment with other lasers or radiation can be treated with the pulsed dye laser. Because the pulsed dye laser is not as effective for nodular hemangiomas as it is for



Figure 2. Purple portwine hemangioma in a 27-year-old-woman*

* These figures were published in Garden JM, Tan OT, Parrish JA. The pulsed dye laser: Its use at 577 nm wavelength. J Dermatol Surg Oncol 1987; 13:134-38. Reprinted with permission.

the flat ones, the argon laser is still useful for nodules that develop in portwine stains of older patients, for venous lakes, and other similar larger ectasias.

Summary

Of the presently available modalities, the pulsed dye laser has had the best success in treating portwine stains. Its most important application has been in treating infants (as young as three months old) and in preventing their psychological and emotional trauma.[13] This is an important advance in the treatment of a disorder for which dermatologists and other physicians have not been able to offer any other treatment that is as effective. Its role in preventing the growth of strawberry hemangiomas by their early treatment needs to be investigated.

Treatment of portwine stains and other vascular lesions (such as multiple or resistant telangiectasias on the face (Figures 4 and 5) and trunk, and cherry angiomas) with the pulsed dye laser will soon be offered to patients by the department of dermatology at The Johns Hopkins Hospital. Outpatient facilities and support from the department of anesthesiology will allow optimum treatments of patients with individual needs.

References

1. Jacobs AH, Walton RG. The incidence of birthmarks in the neonate. Pediatrics 1976;58:218-22.
2. van Gemert MJC, Welch AJ, Amin AP. Is there an optimal laser treatment for portwine stains? Lasers Surg Med 1986;6:76-83.
3. Parrish JA, Tan OT. Laser photomedicine. In Dermatology in General Medicine. New York: McGraw-Hill Inc, 1987:1558-66.
4. Garden JM. The dye laser. Sem Dermatol 1987;6:264-70.
5. Tan OT, Carney JM, Margolis R et al. Histologic responses of portwine stains treated by argon, carbon dioxide and tunable dye lasers. Arch Dermatol 1986;122:1016-22.
6. Cosman B. Experience in the argon laser therapy of portwine stains. Plast Reconstr Surg 1980;65:119-29.
7. Goldman L. The argon laser and the portwine stain. Plast Reconstr Surg 1980;65:137-39.
8. Silver L. Argon laser photocoagulation of portwine stain hemangiomas. Lasers Surg Med 1986;6:24-28.
9. Noe JL, Barsky SH, Geer DE, Rosen S. Portwine stains and the response to argon laser therapy: Successful treatment and the predictive role of color, age and biopsy. Plast Reconstr Surg 1980;65:130-36.
10. Dixon JA, Gilbertson JJ. Argon and neodymium YAG laser therapy of dark nodular portwine stains in older patients. Lasers Surg Med 1986;6:5-11.
11. Morelli JG, Tan OT, Garden J et al. Tunable dye laser (577 nm) treatment of portwine stains. Lasers Surg Med 1986;6:94-99.
12. Garden JM, Polla LL, Tan OT. The treatment of portwine stains by the pulsed dye laser. Arch Dermatol 1988;124:889-96.
13. Tan OT, Sherwood K, Gilchrest BA. Treatment of children with portwine stains using the flashlamp-pumped tunable dye laser. N Engl J Med 1989;320:416-21.
14. Garden JM, Tan OT, Parrish JA. The pulsed dye laser: Its use at 577 nm wavelength. J Dermatol Surg Oncol 1987;13:134-38. ■



Figure 3. After three pulsed dye laser treatments.



Figure 4. Familial essential telangiectasia in a 41-year-old man.



Figure 5. After one pulsed dye laser treatment.

Genetic Linkage Studies Of Bipolar Affective Disorder

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Underrecognition and undertreatment of affective disorders constitute a serious public health problem in this country. The recent availability of improved methods of genetic linkage analysis make the definition of the genetic basis of some types of bipolar affective disorders feasible within the foreseeable future.

Bipolar affective disorder, formerly known as manic-depressive illness, is characterized by episodes of mania and depression, both of which cause significant impairment. The illness affects about 1.5 million Americans at some time in their lives and takes a tremendous toll in terms of personal suffering, disruption of relationships and careers, loss of lives, and the economic cost of lost productivity.

Despite our ignorance of fundamental mechanisms underlying these clinical disorders, several remarkably effective treatments have been discovered, including tricyclic antidepressants, monoamine oxidase inhibitors, and electroconvulsive treatment (ECT) for depression and neuroleptic drugs, lithium, and carbamazepine for mania. Lithium and carbamazepine are also effective in preventing relapses of either depression or mania. Overall, about 80 percent of bipolar patients can expect an excellent response to treatment. However, only 20 to 30 percent of affected individuals get both accurate diagnosis and appropriate medical therapy.

About half of all individuals with major depression do not seek treatment. Those who do may not be accurately diagnosed or if diagnosed, may receive inappropriate or inadequate treatment. Manic patients often attract sufficient attention to become hospitalized but may be misdiagnosed as schizophrenic and miss the opportunity for lithium therapy. The need for a useful diagnostic test for these patients cannot be overemphasized.

Evidence of a genetic contribution to the etiology of affective disorders comes from family, twin, and adoption studies. Controlled family studies such as those by Gershon et al.[1] and Mendlewicz and Rainer[2] show dramatically increased rates of affective disorders in family members of affectively ill probands, compared with family members of probands who have other psychiatric disorders or no psychiatric disorder. Twin studies[3] show greater concordance for affective disorders among monozygotic than among dizygotic twins. An adoption study[4] showed that affective disorders were more common in adopted children whose biological parents had the illness, regardless of the health status of the adoptive parents. While there is considerable evidence for an important genetic contribution to the etiology of bipolar disorder, knowledge regarding the mode(s) of transmission is lacking.

Recent advances in molecular biology have led to a dramatic increase in knowledge regarding the genes and genetic mechanisms involved in simply inherited genetic diseases. These developments have led to a shift in emphasis from the mathematical estimation of recurrence risks and patterns of transmission (segregation analyses) to the search for genetic markers linked to genes for the major psychiatric disorders (linkage analyses). In linkage studies, evidence for or against a hypothesized location of a disease gene is obtained by following the distribution of the disease phenotypye and of a genetic marker among family members. If the marker and disease phenotype co-segregate so frequently that the odds against the co-segregation being due to chance exceed 95 percent, then they are considered to be linked. The likelihood of linkage is usually expressed as a logarithm to the base 10 of the odds ratio of the probability of linkage to the probability of no linkage and is called a LOD score. A LOD score of 3, which represents odds of 1000 to 1 favoring linkage, is the 95 percent confidence level used when testing one marker locus and one disease gene locus.

The earliest linkage studies of bipolar disorder used genetic traits as markers. Reliance on traits such as color blindness and classical protein markers such as G6PD as markers has been nearly obviated by the use of restriction fragment length polymorphisms (RFLPs).[5] RFLPs are variations in DNA fragments produced after DNA has been digested by enzymes (restriction endonucleases) that cut it at specific base sequences. The large number of RFLPs that occur in the population and the ease with which they can be detected have greatly increased the number of potential markers.

The new molecular genetic methods have yielded the greatest success for rare mendelian disorders for which the mode of inheritance was known and the phenotype clearly specified, as in cystic fibrosis and Huntington's disease.[6] For conditions like Huntington's, it is now possible to localize disease loci without knowledge of the pathophysiology of the disease and to develop a screening blood test for the disease without identifying the actual disease gene.

Seemingly contradictory findings have been emerging from linkage studies of bipolar affective disorder. The early bipolar linkage studies using phenotypic markers suggested that some bipolar families with no male-to-male transmission had an X-linked single-gene disorder.[7] In 1987 there were two reports of linkage of bipolar disorder to markers on the X-chromosome, one of which was based on RFLP markers[8] and the other on G6PD deficiency and color blindness.[9] However, other families without male-to-male transmission that were informative for one of these markers failed to show linkage;[10,11] in addition, many families were noted to have male-to-male transmission.

In 1987 Egeland and her group[12] reported finding linkage in an Old Order Amish family with bipolar disorder to RFLP markers on the short arm of chromosome 11. Since the initial study, clinical follow-up on members of the core pedigree has revealed that two previously unaffected indiviuals subsequently became ill.[13] These two recombinants dropped the LOD score below the level of significance. Genetic re-evaluation of the core pedigree including 10 members who had previously been incompletely genotyped decreased the LOD score even further, as did extending two branches of the family.

There has been been a recent report of a family in which affective disorder is co-segregating with a balanced 9/11 chromosomal translocation.[14] Chromosome analysis revealed that the breakpoint on chromosome 11 was at 11q22.3 and that the 11q23-11qter was translocated to chromosome 9p22. This finding is of considerable interest since the dopamine D2 receptor, a major site of action of neuroleptic medications used in the treatment of affective disorders and schizophrenia, recently has been mapped to the 11q22.3-11q23 junction.[15]

Linkage of bipolar disorder to a locus on chromosome 6 also has been reported in a set of small families,[16] but the finding has not been replicated.

These seemingly contradictory findings point out some of the major problems in doing linkage analyses in the major psychiatric disorders, particularly the affective disorders.

Difficulties in Genetic Linkage Research

The *lack of clear-cut mendelian patterns of inheritance* has impeded linkage studies in bipolar disorder. Studies to date indicate the bipolar disorders are probably a mix of oligogenic and single-gene forms. Currently linkage analyses are useful for studying only the single-gene forms.

Heterogeneity (a single phenotype being caused by any one of several genes) creates a major problem for linkage analyses since evidence in favor of linkage to a particular locus in several of the families may be canceled out by evidence against linkage at that locus in other families in which bipolar illness is associated with a different locus. The traditional approach used to deal with heterogeneity has been to study one large family. Using one large family, one may be able to find one locus associated with the condition, but it involves a great deal of work to find one, possibly rare, locus. Experience with the Old Order Amish family has shown that even this approach is fallible.

An alternative approach to the problem of heterogeneity is to study a set of small families with multiple affected individuals using a linkage map of DNA markers (RFLPs). In 1987 a useful linkage map of 403 polymorphic markers (including 393 RFLPs), which linked to 95 percent of the DNA in the human genome, became available.[17] Since then, many other informative, mapped RFLP markers have become available. Using new analytic methods such as simultaneous search and interval mapping[18] together with a

linkage map, it is possible to search simultaneously for several linked loci in a set of small families with multiple affected members.

Our linkage study of bipolar disorder, which began three years ago, was designed to create a clinical resource of 50 small families with a structure particularly informative for linkage studies: a treated BPI proband; two or more sibs affected with either BPI, BPII, or recurrent major depressions; two living parents, at least one of whom is unaffected; and sufficient other relatives to establish the phase of the markers. To find such families, we have screened the inpatient units, day treatment center, and outpatient clinics at the Phipps Clinic of The Johns Hopkins Hospital and the Francis Scott Key Medical Center. Our consultants in Iowa have screened the inpatient unit at the University of Iowa Psychiatric Hospital.

We are working in collaboration with Dr. Donis-Keller, now at Washington University, who has genotyped several of our families and found no evidence of linkage to the H-ras and INS loci on the short arm of chromosome 11.

Assortative mating,[19,20] another major problem encountered in linkage studies, refers to the marriage of two individuals with major affective disorders more often than would be expected by chance. This phenomenon results in two-sided families, that is, with affective disorders in both parental lines. Assortative mating may introduce two different disease genes into a family and presents a problem for linkage studies, which are efficient at detecting only one disease locus per family. Even if one is studying one large family, there may be some branches of the family that cannot be used without destroying the evidence for linkage if there are affected by affected matings.

In our linkage study, we have screened approximately 1,000 bipolar pedigrees. Most were excluded because they had insufficient numbers of affected members or unsuitable probands, or were obviously two-sided. After a second level of screening, we identified 45 apparently suitable families. Further evaluation revealed that 22 of these families were either uncooperative or unsuitable, leaving us with 23 families, half of whom appear to be clearly one-sided. To facilitate the exclusion of two-sided families, we interview the parents as soon as possible after a potentially suitable proband has been identified.

Aspects of our design may have increased the number of two-sided families we have been finding. Our requirement of three or more affected sibs may have biased our sample towards two-sided families. By recruiting the majority of the probands from the Johns Hopkins Hospital, we may have been selecting from a patient population biased toward the severe forms of the illness that are often the outcome of affected matings. We are making changes to address each of these issues.

Establishing the phenotype is critical to the success of any linkage study. Clinically, although severe cases are easily and reliably diagnosed, there is no clear separation between mildly affected and unaffected individuals. The formulation of specified diagnostic criteria has been associated with a substantial increase in the reliability of the direct assessment of affective disorders. In our bipolar study, clinical diagnoses are based on data from a structured interview: the Schedule for Affective Disorders and Schizophrenia-Lifetime version (SADS-L),[21] hospital records, and information from treating psychiatrists and family members. Diagnoses are made in accordance with the Research Diagnostic Criteria (RDC).[22] Prior to beginning our study we demonstrated good interrater reliability using the SADS interview and RDC with patients with a variety of diagnoses.

Diagnoses for all family members interviewed are reviewed by two psychiatrists other than the interviewer. If a consensus diagnosis cannot be reached for a case, that individual will not be included in the analyses. Consideration is given to severity factors such as number of symptoms, number of recurrences, and treatment history which for affective disorders have been shown to indicate stability of the diagnoses.[23]

Diagnosing an unaffected individual as affected (false positive) decreases the power of the linkage analysis method. Thus the diagnosticians must have a high threshold for calling a case. Patients with an uncertain phenotype should be excluded from the analyses and followed up at regular intervals to determine whether their status has changed to that of a case. For the same reason, every attempt must be made to screen out nongenetically caused cases, phenocopies that may be due to endocrine disorders, neurological disorders such as strokes and Parkinson's disease, and to pharmacological agents (for example, steroids, L-Dopa, and reserpine).

Diagnosing as unaffected someone who actually has the gene (false negative) usually results from lack of expression of the gene (incomplete penetrance). This can be corrected for by entering an estimate of penetrance into the linkage analyses.

Phenotyping and genotyping must be done independently to prevent either aspect of the study from being biased by the other.

Lack of replication has plagued linkage studies in affective disorders. Since this may be due in part to the variability among studies in the methodologies used, guidelines for conducting these studies have now been developed.[24]

Future Directions for Studies

Findings to date indicate that the genetics of bipolar illness are much more complicated than had been anticipated and that single-gene transmission may account for a small proportion of all cases compared to mutiple-gene forms. While this indicates we are still at a preliminary stage in unraveling the genetics of bipolar disorders, there are reasons for optimism.

One promising strategy is to look for linkage to candidate genes such as those for tryptophan and

tyrosine hydroxylase (enzymes involved in the formation of the neurotransmitters serotonin and norepinephrine that help regulate mood) and the dopamine D2 receptor, all of which have been localized to chromosome 11.

More resources are being devoted to genetic research into psychiatric as well as other disorders. The National Institute of Mental Health has funded a new genetics initiative for bipolar disorder, schizophrenia, and Alzheimer's disease. The four centers studying bipolar disorders will collect a total of 265 families, which should increase the likelihood of finding other loci that are linked to bipolar disorders.

An exciting new venture is the Genome Project whose mission is to sequence the entire human genome. This huge enterprise, which is projected to cost $3 billion over the next 10 years, will facilitate the mapping and isolation of genes and will lead to cloning of genes to determine the gene products, a prerequisite to devising rational treatments.

At some point in the future *all* the genetic subtypes of bipolar disorder will be identified. Perhaps in the not-too-distant future, the loci for the *most commonly occurring single-gene forms* of bipolar disorder will be found and those genes isolated and cloned, making early and accurate diagnosis and rational treatment a reality for many bipolar patients.

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References

1. Gershon ES, Hamovit S, Guroff JJ et al. A family study of schizoaffective, bipolar I, bipolar II, unipolar, and normal control probands. Arch Gen Psychiatry 1982;39:1157-67.

2. Mendlewicz J, Rainer JD. Morbidity risk and genetic transmission in manic-depressive illness. Am J Hum Genet 1974;26:692-701.

3. Kringlen E. Heredity and environment in the functional psychoses: An epidemiological-clinical twin study. Oslo: Universitet Forlager, 1967.

4. Mendlewicz J, Rainer JD. Adoption study supporting genetic transmission in manic-depressive illness. Nature 1977;268:327-29.

5. Botstein D, White R, Skolnick M, Davis R. Construction of a genetic linkage map in man using restriction fragment length polymorphisms. Am J Hum Genet 1980;32:314-31.

6. Gusella JF, Wexler NS, Conneally PM et al. A polymorphic DNA marker genetically linked to Huntington's disease. Nature 1983;306:234-38.

7. Reich T, Clayton P, Winokur G. Family history studies, V: The genetics of mania. Am J Psychiatry 1969;125:1358-69.

8. Mendlewicz J, Simon P, Sevy S et al. Polymorphic DNA marker on X-chromosome and manic depression. Lancet 1987;1:1230-32.

9. Baron M, Risch N, Hamburger R et al. Genetic linkage between X-chromosome markers and bipolar affective illness. Nature 1987;325:783-87.

10. Gershon ES, Targum SD, Matthysse S, Bunney WE. Color blindness not closely linked to bipolar illness. Arch Gen Psychiatry 1979;36:1423-30.

11. Kidd KK, Egeland JA, Molthan L et al. Amish study, IV: Genetic linkage study of pedigrees of bipolar probands. Am J Psychiatry 1984;141:1042-48.

12. Egeland JA, Gerhard DS, Pauls DL et al. Bipolar affective disorders linked to DNA markers on chromosome 11. Nature 1987;325:783-87.

13. Kelsoe JR, Ginns EI, Egeland JA et al. Re-evaluation of the linkage relationship between chromosome 11p loci and the gene for bipolar affective disorder in the Old Order Amish. Nature 1989;342:238-43.

14. Smith M, Wasmuth JD, McPherson C et al. Cosegregation of an 11q22.3-9p22 translocation with affective disorder: Proximity of the dopamine D2 receptor gene relative to the translocation breakpoint. Am Soc Hum Genet Annual Meeting, Abstract 0864, 1989.

15. Grandy DK, Litt M, Allen L et al. Human dopamine D_2 receptor gene is located on Chromosome 11 at q22-q23 and identifies Taq1 RFLP. Am J Hum Genet 1989;45:778-85.

16. Kruger S, Turner WJ, Kidd KK. The effects of requisite assumptions of linkage analyses of manic-depressive illness with HLA. Biol Psychiatry 1982;34:1229-35.

17. Donis-Keller H, Green P, Helms C et al. A genetic linkage map of the human genome. Cell 1987;51:319-37.

18. Lander E, Botstein D. Mapping complex genetic traits in humans: New strategies using a complete RFLP linkage map. Cold Spring Harbor Symp Quant Biol 1986;51:49-62.

19. Gershon ES, Dunner DL, Sturt L, Goodwin FK. Assortative mating in the affective disorders. Biol Psychiatry 1973;7:63-74.

20. Merikangas KR, Spiker DG. Assortative mating among inpatients with primary affective disorder. Psychol Med 1982;12:753-64.

21. Endicott J, Spitzer RL. A diagnostic interview: The schedule for affective disorders and schizophrenia. Arch Gen Psychiatry 1978;35:837-44.

22. Spitzer RL, Endicott J, Robins E. Research diagnostic criteria for a selected group of functional disorders. New York: Biometrics, 1975.

23. Rice JP, Endicott J, Knesevich MA et al. The estimation of diagnostic sensitivity using stability data: An application to major depressive disorder. J Psychiatr Res 1987;21:337-45.

24. Merikangas KR, Spence A, Kupfer DJ. Linkage studies of bipolar disorder: methodologic and analytic issues. Arch Gen Psychiatry 1989;46:1137-41.

Modern Treatment of Brain Tumors

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Although there has been enormous improvement in the safety and accuracy of our diagnostic approaches and in the precision and safety of our surgical techniques, the long-term survival of patients with malignant brain tumors remains dismal.
With an increased understanding of the fundamental biologic characteristics of brain tumors, we should be able to improve the outlook for these patients.

Progress has been made in the evaluation, diagnosis, and treatment of patients with brain tumors. Although Harvey Cushing joined the Hopkins staff in 1901, he did not perform his first brain tumor operation until 1905.[1] The first skull x-rays were performed in approximately 1900. Most of Cushing's intracranial operations were exploratory and palliative, and he had to rely on clinical judgment for localization. By applying Halsted's meticulous surgical techniques, Cushing reduced the mortality of intracranial tumor operations from 85 percent to approximately 10 percent.

Walter Dandy, Cushing's successor, developed pneumoencephalography to better localize lesions and demonstrated that many brain tumors could be cured by total resection rather than merely palliated by decompressive operations.[2] The introduction of glucocorticoids into neurosurgical practice in the late 1960s brought the neurosurgical operative mortality down from 30 percent to its current rate of less than 1 percent [3] During the past decade there has been enormous improvement in the safety and accuracy of our diagnostic approaches and in the precision and safety of our surgical techniques, which certainly lead to improved quality of life for patients with brain tumors. Nonetheless, we have not yet been able to affect the biology of the malignant brain tumor behavior; and, therefore, the long-term survival of patients with malignant brain tumors remains dismal.[4]

Diagnosis

The symptoms of most intracranial lesions are caused either by focal neurologic deficits due to the mass effect or by diffuse increased intracranial pressure. Signs and symptoms of increased intracranial pressure include headache (the presenting symptom

of approximately one-third of the patients with a brain tumor), nausea, vomiting, diplopia due to palsy of the trochlear or abducens nerves, and papilledema. The premier signs of increased intracranial pressure are altered mental status, lethargy, and obtundation. The headaches are characteristically worse in the morning because of differences in cerebrospinal fluid (CSF) circulation between the supine and upright positions. There is often a regional correlation to the headache, especially with frontal tumors causing frontal headaches and occipital lesions causing occipital or posterior cervical pain. This may be due to local stretching of pain fibers in the dura. There is an urgent need to begin treating patients who present with increased intracranial pressure.

A far better prognostic sign is a presentation with local symptoms, for example, seizures. Almost half the patients have experienced a seizure at the time of their first presentation. The seizure may be the focal Jacksonian type, which aids in localization, or the generalized grand mal type. Often, the first seizure is a momentary loss of alertness and may be ignored by the patient. Other focal signs observed in patients with supratentorial hemispheric tumors include personality changes, weakness, sensory loss, visual deficits, hearing changes, anosmia, speech deficits, memory deficits, and other defects in mental functions.

An important characteristic of the symptom complex in the patient with a brain tumor is the *relentless progression* of the symptoms and signs, which correlates with continued tumor growth.

The evaluation of a patient with a suspected tumor begins with a detailed history and neurologic examination. Approximately half the patients with a brain tumor have one of the following findings at the time of presentation: hemiparesis, hyperreflexia, cranial nerve palsy, mental alteration, or papilledema. The level of consciousness determines the urgency of work-up and treatment. The disoriented patient or one with a declining level of consciousness requires immediate evaluation and treatment to lower the intracranial pressure.

Adjuncts to the physical examination include visual field testing. This is useful in that the visual fibers can be specifically affected by local lesions in each of the cerebral lobes. Electroencephalography (EEG) is useful in managing patients who have seizures. In general, brain tumors produce a regional slowing of electrical activity. However, a specific epileptogenic focus may produce spikes or spike and wave foci. Examination of the CSF by lumbar puncture carries significant risk and should be performed only when intracranial mass effect or increased intracranial pressure has been definitively ruled out by neurologic examination and computed tomography (CT) scan or magnetic resource image (MRI). The primary indication for examination of CSF is to rule out meningitis or for evaluation of subarachnoid hemorrhage. CSF protein above 40 mg per dl is highly suggestive of a tumor, although it can be a consequence of bleeding or infection. Tumors may lower CSF sugar as do infections or viral encephalitis. CSF Millipore filtration for cytology as well as tissue culture are useful for the diagnosis of tumors in the CSF. Tumor markers such as alpha-fetoprotein, human chorionic gonadotropin (hCG), polyamines, and angiogenesis factor are useful for following tumor response to treatment.

Radiographic evaluation of the patient with a suspected brain tumor may begin with a CT scan or MRI. The CT scan demonstrates the configuration of the lesion, its relative vascularity and calcification, and its effects on surrounding structures. The edema and consequent mass effect also can be evaluated. The presence of increased intracranial pressure or hydrocephalus is also observed.

CT scans can be obtained in axial and coronal directions to better localize the tumor for surgical intervention. By marking the scalp while the patient is in the CT scanner, the topographic localization can be pinpointed. Three-dimensional images using multiplanar reconstruction are useful for surgical planning and for follow-up of therapeutic effects. Dynamic CT scanning, whereby a pulse of constant dye is injected with rapid sequential scanning, is useful for determining the vasculature of the tumor and for ruling out the presence of vascular lesions mimicking a tumor. A low-grade, well-differentiated astrocytoma occasionally may not be apparent on routine CT scanning. It is therefore necessary to follow some patients with sequential CT scans if their symptoms continue to develop. MRI with and without gadolinium enhancement is the most sensitive and precise method for tumor detection and delineation of the vasculature. Vascular lesions such as stroke often mimic the mass effect seen with brain tumors. These can be differentiated by sequential CT scans or MRIs. Strokes tend to resolve within a few weeks, whereas tumors progressively worsen.

Magnetic resonance imaging is playing an increasing role in the evaluation of intracranial lesions. MRI is frequently more accurate than CT scanning in defining distinct borders of lower-grade astrocytomas. This has led to an improvement in the ability to surgically resect low-grade astrocytomas. Spread of edema to the opposite hemisphere appears to signify a poorer prognosis.

Positron emission tomography (PET) scanning, while still experimental, holds the additional promise of using radioisotope-labeled metabolically active substances (for example, glucose or methionine) to evaluate the functional activity of a tumor.[5] Nuclear magnetic spectroscopy also holds the promise of evaluating the metabolic activity of a brain tumor, not just its structural anatomy.[6]

Cerebral angiography is only occasionally necessary. Its major role is to outline the detailed vascular supply to a tumor as an aid to surgical intervention.

Surgery

Despite the advances in diagnostic techniques, the

definitive diagnosis of a brain tumor cannot be made without pathologic examination of the tissue. The surgical goals are to remove as much tumor as is safely possible without creating a new neurologic deficit. In addition, if the tumor infiltrates through the frontal, temporal, or occipital lobes, a partial lobectomy may be beneficial for decompression. The intraoperative use of the microscope, laser, and ultrasonic aspirator have further improved the ability to remove tumors while preserving normal neurological function. In selected cases, an indwelling subdural electrode array can be implanted to physiologically define functional areas of brain before the definitive operation for the brain tumor is carried out. The neurophysiological data allows an aggressive neurosurgical attack while minimizing the risk of producing functional deficits.

Hydrocephalus can be relieved by either ventricular drainage or an internal shunt. For tumors located in a critical area of the brain (for example, the speech area or motor strip) or for deep-seated lesions, an open biopsy may be done through a small craniotomy with direct observation of the tissue to be resected.

A useful adjunct to surgical biopsy is intraoperative ultrasound. With this technique, a cyst or mass can be identified and the biopsy needle observed directly. A further refinement in biopsy technique is the stereotactic CT-guided biopsy. This approach is useful for deep-seated lesions located in critical areas.[8] The techniques are now so refined that a specific area of CT enhancement can be identified for biopsy.[9]

All surgical patients are treated prophylactically with antiseizure medication, usually phenytoin or phenobarbital, as well as with a corticosteroid, usually dexamethasone, 4 mg every 6 hours. If there is significant mass effect, the dose of steroid is increased. Appropriate antacids and H2 blockers are used with the steroids. One week after the operation, the steroid doses are tapered slowly and eventually discontinued, whereas the antiseizure medication generally is continued indefinitely.

Reoperation is reserved for patients who have benefited significantly from their prior surgery, are in good neurologic condition, have a local recurrence, and are not easily managed with steroids alone. Reoperation in these selected cases can significantly prolong both the length and quality of survival and may allow adjuvant therapies to be more effective.[10,11]

Stereotactic radiosurgery is now possible and allows for precise irradiation of small well-localized lesions.

Adjuvant Therapy

For malignant tumors, surgical therapy is followed by approximately 6000 cGy of radiation therapy. For patients with malignant gliomas, surgery plus radiation therapy improves the median survival from 14 weeks with surgery alone to 36 weeks. The addition of intravenous chemotherapy with either 1,3-bis-(2-chloroethyl)-1-nitrosourea (BCNU) or methyl-1-(2-chloroethyl)-3-cyclohexyl-1-nitrosourea (methyl-CCNU) does not significantly change median survival but does dramatically increase the proportion of patients surviving more than 18 months (27.2 percent with surgery, radiation therapy, and BCNU versus 4 percent for surgery and radiation therapy or BCNU alone).

Experimental Therapy

A variety of experimental protocols are available for malignant gliomas. Their efficacy remains to be determined.

Interstitial radiation currently is used to treat tumor recurrences.[12] This therapy is associated with a high percentage of patients suffering radiation necrosis to the surrounding brain. Reoperation commonly is required, but this complication is partially offset by the increased survival of these patients. Other experimental protocols involve intra-arterial chemotherapy, immunotherapy, hyperthermia, photoradiation, and manipulation of the blood-brain barrier.

At Johns Hopkins Hospital patients are offered a variety of experimental protocols to treat malignant gliomas. After maximal surgical resection, two cycles of a three-day infusion of cisplatinum and BCNU are given prior to radiation therapy. Recurrences are being treated with carboplatinum, a platinum derivative with less neurotoxicity and better brain penetration.

An entirely new method of drug delivery to the brain is being evaluated:[13-14] a biocompatible, biodegradable polymer (polyanhydride) delivers chemotherapy to the brain. A Phase I study involving 21 patients at five medical centers showed these polymers were safe when implanted at the time of surgery.[15] A prospective placebo-controlled randomized study is under way to determine if this method can effectively deliver high doses of BCNU chemotherapy while minimizing systemic exposure. Such an approach opens the door for targeted therapy to specific locations in the brain.

Summary

Thus, there have been enormous changes since Cushing's time in our ability to evaluate and treat brain tumors. While these advances have allowed cures for patients with benign brain tumors, they have not yet changed the long-range outlook for patients with malignant lesions.

Newer approaches, such as the development of new chemotherapeutic agents, immunotherapeutic agents, biological response modifiers, drugs that could inhibit neovascularization of tumors, or better methods of drug delivery, need to be developed and tested. With an increased understanding of the fundamental biologic characteristics of brain tumors, we should be able to improve the outlook for these patients.

References

1. Long DM. A century of change in neurosurgery at Johns Hopkins: 1889-1989. J Neurosurg 1989;71:635-38.

2. Long DM. The Johns Hopkins Medical Centennial. Neurosurgery 1989;24:953-55.
3. Galicich JG, French LA, Melby JC. Use of dexamethasone in treatment of cerebral edema associated with brain tumors. Lancet 1961;81:46.
4. Mahaley MS, Mettlia C, Natarajan N, Laws ER, Peace BB. National survey of brain tumor patients. J Neurosurg 1989;71:826-36.
5. Rozental JM, Levine RL, Nickles RJ, Dobkin JA. Glucose uptake by gliomas after treatment: A positron emission tomographic study. Arch Neurol 1989;46:1302-1307.
6. Steen RG, Tamargo RJ, Brem H, Glickson JD, and Wehrle JP. *In vivo* ^{31}P nuclear magnetic resonance spectroscopy of rat 9L gliosarcoma treated with BCNU: Dose-response of spectral changes. Magn Reson Med 1989;11:258-66.
7. Morris HH, Luders H, Hahn JF, Lesser RP, Dinner DS, Estes ML. Neurophysiological techniques as an aid to surgical treatment of primary brain tumors. Ann Neurol 1986;19:559-67.
8. Winger MJ, MacDonald DR, Cairncross JG. Supratentorial anaplastic gliomas in adults: The prognostic importance of extent of resection and prior low-grade glioma. J Neurosurg 1989;71:487-93.
9. Greene GM, Hitchon PW, Schelper RL, Yuh W, Dyste GN. Diagnostic yield in CT-guided stereotactic biopsy of gliomas. J Neurosurg 1989;71:494-97.
10. Ammirati M, Galicich JH, Arbit F, Liao Y. Reoperation in the treatment of recurrent intracranial malignant gliomas. Neurosurgery 1987;21:607.
11. Salcman M. Morbidity and mortality of brain tumors: A perspective on recent advances in therapy. Neurol Clin 1985;2:229-57.
12. Gutin PH, Leibel SA, Wara WM, et al. Recurrent malignant gliomas: Survival following interstitial brachytherapy with high-activity iodine-125 sources. J Neurosurg 1987;67:864.
13. Brem H, Tamargo RJ, Olivi A. Delivery of drugs to the brain by use of a sustained release polymer system. In New Technologies and Concepts for Reducing Drug Toxication. H. Salem, ed. Caldwell, NJ: Telford Press, 1990, in press.
14. Yang MB, Tamargo RJ, Brem H. Controlled delivery of 1, 3-vis (2-chloroethyl)-1-nitrosourea from ethylene-vinyl acetate copolymer. Cancer Res 1989;49(18):5103-5107.
15. Brem H, Mahaley MS, Vick NA et al. Interstitial chemotherapy with drug polymer implants for the treatment of recurrent gliomas. 1990 submitted.

A MESSAGE FOR THE HEARING IMPAIRED

The Resound Hearing Aid, using the technology developed by ATT-Bell Lab and Rodney Perkins, M.D. (Stanford University) is a hearing device of unsurpassed cosmesis and quality. For those who qualify, this device provides superior performance, comfort and acceptance when compared to all the existing electroacoustic devices for the hearing impaired. A digital hearing aid using the Texas Instruments TM 532020 digital signal processor programmed specifically for the hearing aid user to match their individual need.

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The Resound has the ability to compensate for the distortion of sound recruitment common to regular hearing aid users. The Resound adjusts the intensity for each frequency to fit into the individuals comfortable hearing range. Thus, the distortion with high tones of speech, the loss of consonants and indistinctness of speech, the loss of directionality and the wind noise are practically eliminated with the Resound. The programming of the device is done by Dr. Kathryn Copmann, Ph.D. audiologist and the evaluation and implantation is done surgically by Otolaryngologist Lewis B. Newberg, M.D.

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For further information you may contact: Lewis B. Newberg, M.D.
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Tumors of the Skull Base

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Recognition of the many benign and malignant tumors that occur in the skull base is now simple, given three-dimensional CT scanning and MRI with enhancement. Recent developments in surgical technique have allowed these tumors to be approached, but only in the past two to three years has radical surgery been possible.

It is traditional to divide tumors of the skull into those which are primary and secondary and to further divide these categories into benign and malignant. Primary benign tumors of the skull are chondroma, osteoma, and giant cell tumor. Primary malignant tumors include chondrosarcoma, osteogenic sarcoma, fibrosarcoma, and giant cell tumor. Chordoma can be considered benign or malignant. More common tumors include meningiomas, tumors of the pituitary, and tumors of the glomus jugulare, and schwannomas of the acoustic nerve. Malignant secondary tumors are nearly all metastatic or invasive from the nasopharynx or paranasal sinuses.[1]

A group of unusual diseases simulate skull/base tumors including osteopetrosis, Paget's disease, mucocele, and fibrous dysplasia.

Many lesions are classified according to their radiographic appearance. It is traditional to describe them as osteolytic or radiolucent, osteoblastic or sclerotic, and mixed. Osteolytic lesions are chondroma, giant cell tumor, chondrosarcoma, osteogenic sarcoma, chordoma, meningioma, glomus jugulare tumor, metastatic carcinoma, and locally invasive carcinoma. Paget's disease, mucocele, and fibrous dysplasia also present with radiolucency. The osteoblastic lesions are osteoma, meningioma, metastatic carcinomas, osteopetrosis, Paget's disease, and fibrous dysplasia. Mixed lytic blastic lesions include osteogenic sarcoma, meningioma, metastatic carcinoma, Paget's disease, and fibrous dysplasia.[1,2]

Primary Benign Tumors

Chondroma Chondromas are tumors of young adults and occur equally in the sexes. Most occur in the nose or paranasal sinuses. Typically these present with sinus-related symptoms. The more unusual spheno-occipital lesions typically extend into the parasellar area or the cerebellopontine angle. They may mimic meningiomas of the medial sphenoid wing and present with extra-ocular muscle palsies, trigeminal pain, and proptosis. Tumors of the

cerebellopontine angle cause 5th, 7th or 8th nerve dysfunction. Lower cranial nerve palsies characterize tumors that occur around the jugulare bulb.

Imaging studies demonstrate a lytic lesion with sharp margins and stippled calcification within. Treatment of these tumors is total surgical removal. A few will undergo malignant degeneration.

Osteomas Osteomas most commonly are found in the paranasal sinuses. The osteomas that arise from the skull base usually project internally and produce symptoms by compression of adjacent neural structure. By x-ray the osteoma is a well-defined, smoothly homogeneous increased bone density. The treatment is extensive surgical removal.

Giant cell tumor Most giant cell tumors are found in the mandible, and a few are of bone destruction. The treatment of choice is local excision. There is apparently considerable overlap between benign and malignant forms. Radiation therapy may produce sarcomatous degeneration and is not used except for obviously malignant tumors.

Primary Malignant Tumors

Chondrosarcoma These tumors usually present in adult life and most frequently occur in the skull base. Pain is the most common complaint, and the history is often very long. The tumors may be large before they are found, and metastases are frequent.

X-ray demonstrates irregular and poorly defined bone destruction. CT or MRI may show a soft tissue component, and there are often stippled calcifications within the area of bone destruction.

Radical surgical resection is the treatment of choice, and if margins are obtained, a cure is possible. X-ray therapy is recommended if resection is incomplete.

Osteogenic sarcoma This common primary malignant tumor is extremely rare in the skull. It occurs in young adults, though it may complicate late Paget's disease or occur following radiotherapy. These tumors grow rapidly, and local pain is the most common problem. Early lung metastases are common.

Osteogenic sarcoma can be recognized as a large lytic lesion with poorly defined margin and a sun ray appearance of bony spicules. The treatment is radical resection, followed by radiation therapy. The prognosis is extremely poor, and long-term survival is less than 10 percent.

Fibrosarcoma These rare tumors produce irregular lytic lesions that destroy a well-defined area of the skull base. The appropriate treatment is radical surgery, followed by radiation. Long-term survival is the rule, in contrast to osteogenic sarcoma.

Chordoma Chordomas arise from notochordal remnants in the clivus. They occur in the third or fourth decade, and most are spinal tumors. About 30 percent occur at the cranial base. A significant number metastasize: the average survival of the patients with untreated tumor is 30 months. The most common clinical symptom is local pain. Cranial nerve involvement is also common, and compression of the brain stem may occur.

The characteristic picture on plain x-ray is destruction of the basisphenoid. Adjacent bone may be sclerotic. There may be a large soft tissue mass. Computerized tomography (CT) scan is best to demonstrate the bony abnormality. Magnetic resonance imaging (MRI) enhanced with gadolinium is the best way to visualize the soft tissue component of the tumor.

The treatment of basisphenoid chordomas is frustrating. Local recurrence is the rule, and all therapy has been palliative. The best approach now is radical surgery. (While the role of radiation therapy is unclear, heavy particle radiation is under trial.) Surgery extends the life of patients from 30 to 55 or 60 months. Our current procedure of choice is a radical transfacial or translabio-glossal-pharyngeal approach with maximum effort to remove as much tumor as possible at the first operation. The major issue in surgery is to avoid injury to cranial nerves.

Intracranial Tumors Secondarily Involving the Skull Base

Tumors of the glomus jugulare Tumors in the region of the glomus jugulare are similar to the paragangliomas that occur elsewhere in the body. They arise in relation to chromaffins cells in the jugular bulb and/or in the ear. Over half appear to be restricted to the middle ear. These are called Class 1; Class 2, 3, and 4 tumors involve the bone locally around the jugular bulb. Class 5 tumors extend into the petrous bone, and Class 6 tumors are those large enough to extend across the midline of the skull.

Patients present with a variety of complaints. Hearing loss is the most common. Pain in the ear and tinnitus are frequent. Progressive involvement of lower cranial nerves may occur early. When there is a significant intracranial mass, gait disturbance, ataxia, nystagmus, and increased intracranial pressure or hemiparesis may occur.

The physical examination frequently discovers a bruit. A bluish mass may be seen in the ear, and neurological examination usually demonstrates cranial nerve findings from 5 through 12 in various combinations.

Imaging studies demonstrate enlargement of the jugular foramen and in associated erosion. The soft tissue mass is best seen with MRI. Angiography is reserved for therapeutic embolization and is not required for diagnosis.

Radical surgery is the appropriate treatment for these tumors, and most can be cured with one or more operations. For all tumors large enough to extend intracranially, we employ a two-stage operation. At the first stage, the posterior fossa is opened, though the tumor is not removed. A fascial graft is taken from the leg and used to cover the tumor. Cranial nerves and blood vessels are isolated on the inside of the graft and

the tumor is then external. This false dura will produce a seal of cerebrospinal fluid and protect the brain stem, cranial nerves, and intracranial vessels from the definitive surgery to remove the tumor. Approximately one month after the first-stage operation, the patient undergoes angiography and the feeding vessels of these vascular tumors are embolized. The following day the patient goes to the operating room, and a lateral extradural approach is used to completely remove the tumor.[3]

The outcome of this surgery is encouraging. Occasionally small residuals cannot be identified, and reoperation is required to remove additional or recurrent tumor. Radiation therapy may be useful to prevent recurrence.

Because these tumors have a great propensity to recur, even with apparent gross total removal, we continue regular scans for an indefinite period.

Meningiomas of the skull base Meningiomas occur from the anterior fossa to the foramen magnum along the midline. The most common compress the anterior visual apparatus, and the next most common group occur on the upper clivus, near the posterior clinoid process. Most symptoms relate to compression of the cranial nerves where the tumor is located. Those meningiomas occurring around the anterior visual apparatus present with painless progressive visual loss or paralysis of one or more extraocular muscles (see Figure 1). Tumors of the upper clivus present with trigeminal pain or sensory loss in the face, extra-ocular muscle palsies, and paresis of one or both lower extremities. This may be subtle, and a gait disturbance may be the only finding (Figure 2). Meningiomas that occur in the cerebellopontine angle cause abnormalities of 7th and 8th nerve function, while those that occur lower near the jugular bulb usually present with pain and deficits of 9, 10, 11, and 12th cranial nerve function. These tumors can grow to enormous size before they are detected.

MRI with gadolinium is diagnostic in virtually all patients. The decision-making process for treatment of these meningiomas is often difficult. They frequently occur in elderly patients. Enormous tumors can have minimal symptoms and do not necessarily require treatment. We generally do not operate on these tumors simply because they are found. Tumors requiring treatment usually cause more or progressive symptoms and usually are found in younger individuals.

The best current therapy is radical surgical removal. Cranial nerve deficits, even long-standing, frequently can be relieved. Many of these tumors can be cured by radical surgery without lasting deficit. Those tumors that envelop cranial nerves or surround blood vessels may not be curable. Particularly in elderly individuals, palliation by subtotal removal is the best and safest course for the patient. X-ray therapy is then used to control any residual tumor. The x-ray therapy can be given immediately after surgery, or it may be withheld until there is some evidence of tumor regrowth.[1]

Schwannomas of the acoustic nerve The typical cerebellopontine angle tumor is the acoustic schwannoma often miscalled acoustic neuroma. These tumors occur in all age groups and are a common cause of progressive hearing loss. With the high-quality imaging now available, there is no reason for such tumors to be missed. Any patient without an obvious otological reason for unilateral hearing loss should be imaged by MRI with gadolinium. The tumors appear as brightly enhanced areas, and the diagnosis is virtually certain.

As these tumors grow, paresis of the face secondary

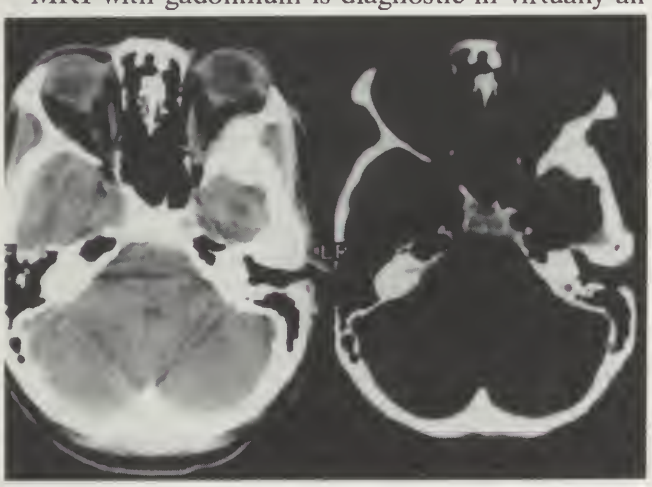


Figure 1. CT of skull base. Scan on the left shows striking overgrowth of left sphenoid bone producing proptoses. Bone window on right demonstrates the contrast in bone thickness; normal right and sclerotic left side. Treated by lateral pterygotemporal decompression.



Figure 2. MR of large basal meningioma (white mass) displacing brain stem and surrounding basilar artery. Total removal by posterior fossa route was possible.

to 7th nerve involvement may occur. Extension of the tumors will produce hypesthesia of the face and loss of 9, 10, 11, and 12th nerve function. When the tumors grow large enough to compress the brain stem, contralateral hemiparesis may occur, and unilateral cerebellar dysfunction will develop late in the course of untreated tumors.

These tumors come in many different sizes. Since the natural history of the tumors is one of steady growth, when discovered their treatment is usually indicated. This is not necessarily true for elderly patients with small tumors. Such patients can be followed with regular scanning and surgery deferred until the tumor grows.

A special situation occurs in Von Recklinghausen's disease where bilateral tumors are the rule. Since preservation of hearing is not common after surgery, removal of both tumors means almost certain deafness. We usually try to remove the larger tumor and preserve 8th nerve continuity so that a hearing aid can be used. The second surgery is withheld until the tumor begins to impair hearing seriously or grows to be a threat to life and function. During the interval, it is important the patient learns the appropriate communication techniques for the deaf.

The surgical procedure and the outcome for the patient are predicated upon tumor size. There are three basic approaches:

1. *Middle fossa* This surgical procedure is done by a small temporal craniotomy that exposes the petrous bone. The area over the tumor is drilled away and the tumor removed. Used for very small tumors, this approach has the possibility of saving hearing.

2. *Translabyrinthine* Used for tumors of all sizes, this operation is particularly effective for small and medium tumors. The petrous bone is removed by drilling, much as in mastoidectomy. The tumor is then removed. The operation has the virtue of being relatively nontraumatic to the patient since literally no cerebellum or brain stem area is exposed. On the other hand, hearing always is sacrificed because of the removal of the petrous bone and its contents. We reserve this approach for elderly patients with small or medium tumors and younger patients who have lost hearing.

3. *Posterior fossa* The traditional neurosurgical operation is through the posterior fossa. The approach is unilateral. The cerebellum is retracted, and the tumor can be exposed with a real but small risk of neural injury. The goal is total removal.

Intracapsular removal for palliation Occasionally, in an extremely large tumor, especially in an elderly patient, it is wiser not to carry out gross total removal of the tumor, but to remove the majority of the tumor leaving the capsule intact. This decreases the risk of cranial nerve injury and eliminates the need for dissection of tumor from brain stem and major vessels. Recurrence probably will occur, but reoperation with intracapsular removal is quite safe and can be repeated as necessary.[3]

Outcome of Acoustic Tumor Surgery

In the not-too-distant past, surgery of the acoustic tumor was dangerous and nearly always associated with permanent loss of 7th nerve function. The advent of microsurgical techniques and better instrumentation has essentially eliminated the major risks. In over 400 cases using our current approaches, we have had no surgical deaths. Injury to brain stem or blood vessels supplying the brain stem used to be a catastrophic occurrence that regularly complicated surgery for large acoustic tumors. One patient became permanently hemiplegic following an apparently uneventful removal of an acoustic tumor. Injury to the anterior/inferior cerebellar artery is the usual postulated cause.

The major risks to patients are cranial nerve dysfunction. Fifth nerve dysfunction on a permanent basis is extremely rare. No patient in our series has a significant residual dysfunction. Loss of 7th nerve continuity used to be virtually certain with all operations, now it is rare. We have deliberately divided the nerve to obtain a total tumor removal or been unable to preserve its continuity during tumor dissection in between 2 and 3 percent of patients. This has occurred only with the largest tumors, and primary repair of the 7th nerve has brought about recurrence of function in over half these patients. Temporary 7th nerve dysfunction is much more common and may occur in as many as half of patients with large tumors. It is much less common with smaller tumors. While recovery is the rule, it may require weeks to many months. In elderly patients, recovery may take a year or more.

Hearing loss is the major consequence of removal of these tumors. Patients who are deaf almost never have any hearing restored. It is occasionally possible to save functional hearing with smaller tumors but very rarely with larger tumors. However, we advise patients to expect deafness following surgery. Preservation or restoration of hearing is the major challenge for new developments in surgical technique. Vestibular dysfunction almost always occurs, but it is improved by therapy, rarely lasting more than a few months except in elderly patients. Deficits of 9th, 10th, 11th, or 12th cranial nerve functions are not uncommon following removal of large tumors because these nerves often are distorted and compressed by the tumor mass. However, recovery is the rule, and we have no patient with a permanent palsy of one of these nerves.

Rarely, the 4th cranial nerve will be adherent to the top of a large tumor. Injury to the nerve may cause diplopia. This is extremely rare, and we have no patient in whom it has been permanent.

Stereotactic radiosurgery offers a new approach to these tumors. Tumors of no more than 2 cm to 3 cm could be irradiated by this technique. The outcome for such patients is uncertain, and the technique is being explored and evaluated in a number of centers.

Cure is now the rule for acoustic tumors. Nevertheless, to be certain that recurrence does not occur, we

scan these patients at yearly intervals for five years and then once every several years thereafter. As yet, we have not had a recurrence in a patient with an apparent total removal.

Radical Operations for Skull Base Tumors

Anterior approaches to the skull base include a radical combined craniotomy and transnasal procedure, the transseptal/transnasal approach to the pituitary region, and midface degloving.[3,4]

Radical surgery for lesions of the anterior skull base This radical operation is used for sinus carcinoma usually involving the ethmoid sinuses. Two teams of surgeons carry out a large bifrontal craniotomy and a transnasal approach to the sinus. The neurosurgical team resects the tumor intracranially, and the entire mass is removed through the nose by the head and neck surgery team. This combined operation has greatly improved the cure rate for these malignant tumors.

Transnasal/transseptal approach to the pituitary gland This is now the standard approach for pituitary tumors and tumors in the general area of the pituitary. The incision is made beneath the lip so there is no external scar, and the exposure is through the midline by removing the nasal septum. The sphenoid sinus is opened, readily exposing tumors of the pituitary area.

Midfacial degloving The midfacial degloving approach provides excellent exposure of the nasal and paranasal sinus cavities, the nasopharynx, rostrum sphenoidale, sella, and clivus. It can be combined with frontal craniotomy for tumors of the ethmoid and cribriform plate; however, invasion of the anterior ethmoid, frontal sinus, or orbit are indications for the more traditional craniofacial resection. The immediate advantages of the procedure include bilateral exposure and avoidance of external scars.

Midfacial degloving is ideal for lesions of the sphenoid, sella, planum sphenoidale, and upper clivus. Wide exposure of the nasal cavity is obtained by removal of the inferior turbinate and the party wall between the maxillary sinus and the nose (medial maxillectomy). This maneuver provides exposure of the entire ipsilateral nasal cavity, nasal septum, sphenoid rostrum, and clivus. If needed for full exposure of the tumor, an identical removal of bone can be performed on the opposite side, or the nasal septum can be reflected or resected to provide exposure of the contralateral nasal cavity.

Infratemporal fossa approaches The lateral infratemporal fossa approaches were developed for lesions of the temporal bone, infratemporal fossa, clivus, and parasellar region. The exposure is obtained by removing the bone of the temporal bone and bone at the base of the skull. The advantages of this approach are early identification and protection of the carotid artery in the temporal bone and skull base, and the exposure is extradural.

Fisch has divided the lateral approach to the skull base into Types A, B, and C, which provide progressively more anterior exposure of the skull base. The Type A approach is used for tumors of the temporal bone and jugular bulb, primarily glomus temporal tumors. The Type B approach extends the exposure to include the apical portion of the temporal bone and the clivus. The Type C approach includes the nasopharynx and parasellar region. The most important difference between these approaches is that the facial nerve must be mobilized and permanently transposed anterior for exposure of the jugular foramen (Type A), but it is left *in situ* in the Types B and C procedures.

All patients having obliteration of the middle ear space suffer a conductive hearing loss. Some transient weakness of facial movement is common (but not universal) after anterior transposition of the facial nerve. The cosmetic deformity is minimal since the zygomatic arch is replaced.

Craniofacial resection The indications for anterior craniofacial resections are benign and malignant tumors of the fronto-spheno-ethmoid region invading the anterior skull base. The prognosis is determined primarily by the histologic type and extent of the tumor; it is relatively good for well-differentiated epithelial tumors (adenocarcinoma, squamous cell carcinoma, esthesioneuroblastoma) and poor for anaplastic carcinomas and sarcomas. The resection can be combined with unilateral orbital exenteration, but invasion of brain parenchyma, extension within the pterygoid muscles, and distant metastases are considered contraindications to the procedure.

Midline labiomandibulotomy approach to the clivus (Trotter approach) The midline transoral approach is useful for extradural lesions of the clivus and upper cervical spine. The most frequent indications are craniocervical chordomas and structural spinal problems, including decompression of basilar impression, fusion of odontoid fractures, and decompression or rheumatoid myelopathy. Shortcomings of the transporal route include a long working distance to the surgical field and contamination of the wound by oral secretions intraoperatively and possibly postoperatively. However, recent advances, including microsurgical technique with long surgical instruments and modern methods of closure, have improved the safety and application of this approach.

Conclusions

Many benign and malignant tumors occur in the skull base. Their recognition is now simple, given three-dimensional CT scanning and MRI with enhancement. Recent developments in surgical technique have allowed these tumors to be approached for the first time in the past ten years, but only in the past two to three years has radical surgery been possible. The techniques evolved in a few centers are gradually spreading to be used by many surgeons. The basic approach to all these tumors is the same. Radical removal with decompression of neural and vascular

structures is necessary for symptomatic relief and for cure.

The malignant tumors kill by local recurrence, not metastases, in most instances. Complete removal of the malignant tumors is unlikely, and surgery is supplemented by radiotherapy.

Most benign tumors are relatively indolent, so even incomplete removal may result in prolonged palliation. The surgical techniques employed are uncommon. The skills of several different surgical disciplines are required for their satisfactory treatment. The Center for Skull Base Surgery at Johns Hopkins uses the team approach consisting of Neurosurgery, Neurotology/Head and Neck Surgery, Neuroophthalmology, and Plastic Surgery. Both surgery and anesthesia are long and tedious. Specialized anesthesia is important; most of these patients require a dedicated neurological intensive care unit. Patients often are ill for a significant period of time after surgery because of their cranial nerve deficits, and their respiratory care is critical. Nevertheless, the outcome for many is gratifying. The great advances in diagnostic imaging, anesthetic and surgical techniques, and postoperative care of the recent past have made surgery of skull base tumors a reality. Those tumors thought to be inoperable only a few years ago, can now be treated effectively with minimal mortality and reasonable morbidity. The skull base team concept has been central to evolving reasonable therapy for these hitherto untreatable tumors.[3]

References

1. Long DM, Kieffer SA, Chou SN. Tumors of the skull. In: Youmans Neurological Surgery. Philadelphia: W.B. Saunders Company, 1982:3227-68.
2. Berkman YM, Blatt ES. Cranial and intracranial cartilaginous tumors. Clin Radiol 1968;9:327-33.
3. Fisch U, Mattox DE. Microsurgery of the Skull Base. New York: Thieme Medical Publishers, 1988.
4. Derome PJ. Surgical management of tumors involving the skull base. Can J Neurol Sci 1985;12:345-47.



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Carcinoma of the Pancreas: Are We Making Progress?

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Over the past several decades no disease has frustrated clinicians more than carcinoma of the pancreas. At the time of diagnosis most patients have been unresectable. Recent reports suggest that when resection is possible, pancreaticoduodenectomy can be performed safely and survival extended by adjuvant therapy.

The incidence of carcinoma of the pancreas has increased threefold over the past 40 years. There are now 25,000 new cases diagnosed annually. This represents only 2 or 3 percent of all cancers, but because of its almost uniform fatality, it is the fourth leading cause of cancer death.

Only a few of the risk factors for carcinoma of the pancreas have been defined: males are more at risk than females; blacks more than whites. It is clearly associated with cigarette smoking. Diabetes, at least in the female, appears to be a risk factor. Chronic pancreatitis probably increases the risk of subsequently developing a carcinoma of the pancreas, but the role of alcohol and coffee have not been clearly defined.

Over the past several decades no disease has frustrated clinicians more than carcinoma of the pancreas. At the time of diagnosis most patients have been unresectable. Of those patients subjected to resection, the hospital mortality has been excessively high. Of the small number of patients with carcinoma of the pancreas who successfully underwent resection, virtually none survived five years. In addition, patients dying from the disease often had uncontrollable and severe abdominal and back pain; it has been a most difficult disease to manage. However, recent reports from Hopkins[1] and other institutions[2,3] suggest that when resection is possible, it can be performed safely and that following resection more patients are surviving longer periods.

Surgical Resection

The first successful resection of a periampullary carcinoma was reported in 1899 by Dr. William S. Halsted,[4] the first Chief of Surgery at The Johns Hopkins Hospital. A 60-year-old woman with obstructive jaundice was examined and found to have a small ampullary cancer. Dr. Halsted performed a local resection, the patient's jaundice cleared, and she lived approximately six months before dying from recurrent cancer.

The first successful pancreaticoduodenectomy performed in this

country for a periampullary carcinoma was reported by Whipple and his associates in 1935.[5] The operation was performed in two stages. The first stage consisted of a cholecystogastrostomy and a gastrojejunostomy to decompress the hyperbilirubinemia and to allow the patient's nutritional status to improve. During the second stage a small regional resection of the second portion of the duodenum and a part of the head of the pancreas was done.

The first one-stage pancreaticoduodenectomy was reported by Dr. I. Ridgeway Trimble, from Hopkins, in 1941.[6] In addition to performing the procedure in one stage, he advocated using the biliary tree instead of the gallbladder to restore biliary-enteric continuity.

The operative procedure evolved over the next several decades. By the 1970s a pancreaticoduodenectomy generally meant resecting the distal half of the stomach, all the duodenum, the gallbladder and distal biliary tree, and the head, neck, and uncinate process of the pancreas. Although many means of reconstruction are possible, the most common were an end-to-end pancreaticojejunostomy, an end-to-side hepaticojejunostomy, and a gastrojejunostomy.

During the 1960s and 1970s many physicians and some surgeons believed the pancreaticoduodenectomy should be abandoned for all periampullary carcinomas, and particularly for carcinoma of the head of the pancreas. The operative morbidity was excessive, and the hospital mortality in most series was in the range of 25 percent.

Recently, however, reports have documented that the excessive morbidity and mortality of this procedure have decreased and that now the operation can be performed safely.[1,2,3] Our experience with periampullary carcinomas at The Johns Hopkins Hospital clearly shows this trend (Table).

Between 1969 and 1980, 41 patients underwent a pancreaticoduodenectomy for a periampullary carcinoma. The mean operative time was nine hours, each operative procedure required over six units of blood replacement, and the hospital mortality was 24 percent. These operations were performed by 22 different surgeons. Between 1981 and 1986 dramatic changes occurred: 47 patients underwent a pancreaticoduodenectomy for a periampullary carcinoma; 30 percent of these had a pylorus-preserving modification, which obviated the need for a hemigastrectomy. Blood loss decreased significantly: the number of units of blood replaced dropped to 3.6. Operative time decreased to less than eight hours, and the hospital mortality dropped dramatically to 2 percent. This trend has continued to the present. Between 1986 and 1989, 55 additional patients have undergone a pancreaticoduodenectomy for a periampullary carcinoma. We are now performing the pylorus preservation modification in 80 percent of all procedures. Blood loss has decreased still further: now only one unit of blood is required per operative procedure. Operative time has decreased to below seven hours, and the mortality has remained less than 5 percent.

Table. Pancreaticoduodenectomy for Periampullary Carcinoma, The Johns Hopkins Hospital

	1969-1980	1981-1986	1986-1989
Patients	41	47	55
Pylorus preserving modification	0	30%	80%
Operative blood loss	3200 ml	1700 ml	800 ml
Operative blood replacement	6.3 u	3.6 u	1.1 u
Operative time	9.0 hr	7.8 hr	6.8 hr
Operations/year	3.4	7.8	18.0
Hospital mortality	24%	2%	4%

Several factors are responsible for this dramatic drop in hospital mortality. First, more pancreaticoduodenectomies are being performed each year. Between 1969 and 1980, less than four resections were performed each year. Between 1981 and 1986 this increased to eight per year, and now we are performing approximately 20 pancreaticoduodenectomies per year for periampullary carcinoma. In addition, a small number of surgeons experienced in pancreatic and biliary surgery are performing all the procedures. Other factors, including better nutritional support and better surgical intensive care units, have helped contributed to the decrease in hospital mortality.

It can now be said with certainty we have an operative procedure for patients with periampullary carcinoma that can be performed safely and that achieves adequate local control.

Long-Term Survival

In 1986 when the long-term survival for patients at The Johns Hopkins Hospital with periampullary carcinoma was examined, we were not surprised to find that patients who had undergone a successful pancreaticoduodenectomy for duodenal cancer, ampullary cancer, and distal bile duct cancer had a five-year survival in the range of 40 percent. It was surprising, however, to find that for patients with adenocarcinoma of the head of the pancreas, the five-year survival was 18 percent.[1] Previously most institutions in this country had reported five-year survivals of less than 5 percent, with most series having no five-year survivors. We recently extended our data evaluation to include 85 consecutive patients with adenocarcinoma of the head of the pancreas, and survival continues to be in the range of 20 percent.

Important factors in survival appear to be size of the primary lesion in the head of the pancreas, and the presence or absence of lymph nodes. If the primary tumor is less than 2 cm in diameter, five-year survival is clearly superior when compared to those patients with tumors greater than 2 cm in diameter. Lymph node status is even more important. Five-year survival approaches 50 percent in the absence of positive nodes

(Figure). If positive lymph nodes are present, five-year survival drops to less than 5 percent. An additional positive factor for long-term survival appears to be receiving two or fewer units of blood during the operative procedure. (Transfusions during the operative procedure have been found to adversely influence survival with other tumors as well.) Undoubtedly there are other factors responsible for the improvement in survival now seen for carcinoma of the head of the pancreas, but further data analysis will be necessary to clearly define them. Whether we are being more selective in performing pancreaticoduodenectomies on more favorable patients, whether the biology of the tumor has changed, or whether we are managing patients better is not clear. It is clear, however, that patients with carcinoma of the head of the pancreas who undergo a successful pancreaticoduodenectomy are surviving longer.

Adjuvant Therapy

One of the most exciting advances in recent years in the management of carcinoma of the pancreas has been the finding by the NIH-supported Gastrointestinal Tumor Study Group that adjuvant therapy can be effective in extending survival for patients who successfully undergo pancreaticoduodenectomy.[7] This important study demonstrated that survival time can be doubled if external beam radiotherapy and chemotherapy (5-FU) are given postoperatively. In those patients receiving adjuvant therapy post-pancreaticoduodenectomy, five-year survival was in the range of 15 percent, again confirming the impression from Hopkins and other centers that patients with carcinoma of the head of the pancreas are surviving longer following pancreaticoduodenectomy. This single study evaluating adjuvant therapy requires confirmation, but it is very suggestive that we may be entering an era in which adjuvant therapy will play an important role in managing patients with carcinoma of the head of the pancreas.

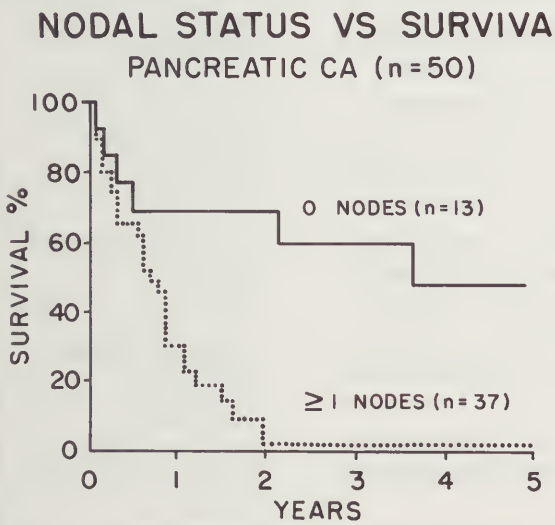


Figure. Five-year actuarial survival curves following pancreaticoduodenectomy for pancreatic cancer. Five-year survival approaches 50 percent when regional lymph nodes are negative but drops to below 5 percent when they contain tumor (Ann Surg 1987; 206:363).

Future Trends

It has taken over 50 years to learn how to do the operative procedure first proposed by Whipple, but the pancreaticoduodenectomy now can be done safely with a hospital mortality of less than 5 percent. In addition, it has proved to be a very effective operative procedure if performed before nodal spread. A challenge therefore will be to search for a tumor marker than can help identify larger numbers of patients with carcinoma of the head of the pancreas prior to regional nodal spread. Furthermore, the demonstration that adjuvant therapy can be effective in prolonging survival gives great hope for further developments in treatment. It is time for the management of carcinoma of the head of the pancreas to be centralized, so that all patients can be included in adjuvant regimens with the hope for more rapid progress. For the first time since 1899, when periampullary carcinoma first was successfully resected,[4] and 55 years from the time the first regional resection was performed,[5] progress is being made in the management of carcinoma of the head of the pancreas.

References

1. Crist DW, Sitzmann JV, Cameron JL. Improved hospital morbidity, mortality and survival after the Whipple procedure. Ann Surg 1987;206:358-65.
2. Trede M. The surgical treatment of pancreatic carcinoma. surgery 1985;97:28-35.
3. Braasch JW, Deziel DJ, Rossi RL et al. Pyloric and gastric preserving pancreatic resection: Experience with 87 Patients. Ann Surg 1986;204:411-18.
4. Halsted WS. Contributions to the surgery of the bile passages, especially of the common bile duct. Boston Med Surg J 1899;141:645-54.
5. Whipple AO, Parsons WB, Mullins CR. Treatment of carcinoma of the ampulla of vater. Ann Surg 1935;102:763-99.
6. Trimble IR, Parsons JW, Sherman CP. A one-stage operation for the cure of carcinoma of the ampulla of vater and the head of the pancreas. Surg Gynecol Obstet 1941;73:711-22.
7. Kalser MH, Ellenberg SS. Pancreatic cancer. Adjuvant combined radiation and chemotherapy following curative resection. Arch Surg 1985;120:899-903.

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Pneumocystis Carinii Pneumonia: Diagnosis And Management

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As management of HIV infection becomes more proactive, early identification of persons at risk for PCP and initiation of preventive therapy will become more routine, and the clinical impact of P. carinii may be ameliorated.

Pneumocystis carinii is a unicellular organism that has been categorized historically among the protozoa and more recently among the yeast.[1,2] Prior to the advent of the acquired immunodeficiency syndrome (AIDS) epidemic in the 1980s, *P. carinii* was an unusual cause of human disease, associated with an interstitial pneumonia in individuals with lymphoreticular malignancies or iatrogenic immunosuppression. With the HIV and AIDS epidemic, *P. carinii* pneumonia (PCP) has become an increasingly common entity encountered in clinical practice as well as a diagnostic and therapeutic challenge for clinicians. Numerous clinical and laboratory advances in recent years have resulted in a better understanding of the organism and the diseases it causes, and in the clinical management of patients with PCP.

Epidemiology

P. carinii is widely distributed in nature and causes asymptomatic infection by early adulthood in the majority of most populations studied. Reactivation of *P. carinii* can occur as a result of defects in cellular immunity, particularly helper T-lymphocyte function. Consequently, PCP serves as a biologic and immunologic marker of immunodeficiency in persons infected with HIV, and its occurrence appears to reflect host immune status rather than demographic, behavioral, or other biological factors. Of the 115,000 cases of AIDS reported to the US Centers for Disease Control by November 30, 1989, approximately 60 percent (69,000) had PCP as their initial AIDS-defining illness. Of patients with an initial episode of PCP, up to 60 percent will have a recurrent episode of PCP within 12 months, in the absence of suppressive therapy.[3,4] Moreover, of the 40 percent of AIDS patients with an initial AIDS-defining diagnosis other than PCP, it is estimated that 50 percent ultimately will develop PCP in the absence of chemoprophylaxis. Thus, we estimate that as a result of the AIDS epidemic, there have been more than 100,000 cases of PCP in the United States in the past decade.

In many areas where HIV is prevalent, PCP has become a leading cause of community acquired pneumonia. At Johns Hopkins Hospital, for example, there were approximately 100 admis-

sions for PCP in 1988 as compared to 125 admissions for pneumococcal pneumonia during the same year.[5]

In developing countries where HIV is prevalent, the frequency of PCP is reported to be substantially lower than in North America and Europe. Several factors may explain this apparent discrepancy. First, the likelihood of opportunistic infections in persons with HIV infection is dependent on both the relative immunocompetence of the host and the virulence of the infecting pathogen. In developing countries, where infection with *Mycobacterium tuberculosis* is endemic, clinical disease from reactivation of tuberculosis may occur prior to the development of immunodeficiency sufficient to result in PCP.[6] Moreover, lethal infections caused by pyogenic bacteria may be more prevalent in developing countries and may occur prior to the time when an infected individual would be susceptible to PCP.[7] Hence, tuberculosis and non-pneumocystis pneumonia are the major causes of HIV-associated pulmonary disease morbidity and mortality in developing countries and appear to outrank PCP in frequency. Second, the diagnosis of PCP (discussed below) can be difficult, requiring skilled personnel and sophisticated laboratory equipment. Because these resources are lacking in many developing countries it is likely PCP is underdiagnosed in these settings.

Pathophysiology

P. carinii is an intra-alveolar pathogen that when reactivated causes an interstitial pneumonitis.[8] Replication of *P. carinii* within the alveoli results in a protein-rich exudate, comprised of *P. carinii* trophozoites and cysts. Accumulation of the exudate causes decreases in total lung capacity and vital capacity and a reduction of oxygen transport across the alveolar capillary membrane, reflected in a reduction of the diffusing capacity for carbon monoxide (DLCO). As the pneumonitis progresses, invasion of the alveolar membrane may occur, resulting in interstitial inflammation, edema, and fibrosis.[8] As infection worsens, disruption of the alveolar capillary membranes results in a physiologic state similar to the adult respiratory distress syndrome.[9,10]

Clinical Presentation

PCP in patients with HIV infection is associated primarily with the insidious onset of constitutional and respiratory symptoms culminating in a frank pneumonia. Compared to patients with PCP associated with other causes of immunodeficiency, HIV patients with PCP have a longer prodrome of symptoms (28 vs 5 days) and less severe symptoms.[11] Presenting symptoms include fever, night sweats, nonproductive cough, and progressive dyspnea. Patients presenting with PCP have frequently experienced significant weight loss, often have oral candidiasis, but otherwise may have no notable abnormalities on physical examination. Auscultation of the chest is usually normal. Because of the nonspecific nature of the presenting signs and symptoms, careful evaluation and the establishment of a specific diagnosis are essential.

Differential Diagnosis and Evaluation

The differential diagnosis of pulmonary disease in persons with HIV infection is given in Table 1. While PCP is the most common cause of pneumonia in patients with AIDS and advanced HIV infection, other potential causes of pneumonitis must be given serious consideration. Tuberculosis may have atypical features in persons with HIV infection and should be vigorously sought in the evaluation.[6,12] Persons with a high probability of prior *M. tuberculosis* infection (for example, immigrants from endemic areas, IV drug users, racial/ethnic minorities) are at highest risk of AIDS-associated tuberculosis.[13] Tuberculin skin testing, while very important, may fail to diagnose tuberculous infection because of HIV-related anergy. Community acquired, pyogenic pneumonia may occur at any time during HIV infection and results from defects in humoral immunity.[14] Compared with PCP, bacterial pneumonia tends to have a more abrupt onset, be associated with a productive cough and chest pain, and produce localized abnormalities on examination of the chest.[15] Nonspecific interstitial pneumonitis is characterized by interstitial inflammation in the absence of a demonstrable pathogen.[16]

After a history and physical examination have been performed, patients suspected of having HIV-related pulmonary disease should be evaluated with a chest radiograph. Radiographic patterns commonly seen in patients with HIV infection are listed in Table 2 along with their most common causes. Patients with a radiograph that suggests PCP should undergo sputum induction to establish a diagnosis. Patients with the radiographic appearance of a bacterial or mycobacterial pneumonia can be evaluated with appropriate stains and cultures of expectorated sputum. If the chest radiograph is normal, further evaluation with noninvasive tests is appropriate in order to determine the likelihood of a pulmonary opportunistic infection. The algorithm in Figure 1 is used at our institution for the efficient and sensitive evaluation of patients with suspected AIDS-related pulmonary disease.

Pulmonary function testing is a sensitive method for detecting pulmonary opportunistic infections in

Table 1. Differential Diagnosis of Pulmonary Diseases in Persons with HIV Infection

1. *Pneumocystis carinii*
2. *Mycobacterium tuberculosis* and *M. kansasii*
3. Pyogenic bacteria
4. Fungi (Cryptococcus, Histoplasma, Coccidiodes)
5. Cytomegalovirus
6. Kaposi's sarcoma
7. Nonspecific interstitial pneumonitis
8. Lymphocytic interstitial pneumonitis

patients with HIV infection. In particular, abnormalities of gas exchange can distinguish patients with and without opportunistic pneumonia. The diffusing capacity for carbon monoxide (DLCO) can detect impairment in gas transport in the lung.[17] When the DLCO is less than 80 percent of that predicted for age, when corrected for hemoglobin, PCP or another infection is likely. Likewise, pulmonary uptake of ^{67}Gallium-citrate 24 to 72 hours after injection is indicative of opportunistic infection. If the DLCO is greater than 80 percent predicted and Gallium lung scanning is negative, then the likelihood of pulmonary infection is less than 1 percent. Because neither DLCO nor Gallium scanning can distinguish between specific infections, an abnormality on either of these tests should prompt a more definitive diagnostic procedure.

Samples of induced sputum from patients with HIV-related lung disease can be used to definitively diagnose PCP and other pulmonary infections.[17] The use of a standardized protocol for the induction of sputum and preparation of specimens is essential for obtaining accurate, reliable results.[18] A number of stains will identify *P. carinii* in sputum. Diff-Quik, a modified Giemsa stain, is an inexpensive and sensitive test for identifying *Pneumocystis* cysts and trophozoites (Figure 2). Considerable experience is important in evaluating slides as the organism may be elusive. Other useful histologic stains include Gomori-silver-methenamine, toluidine blue-O and Gram-Weigert. Recently, immunofluorescence stains using monoclonal antibodies against *P. carinii* have been developed, increasing the ease and sensitivity of sputum induction.[19,20] An indirect immunofluorescence assay (IFA) for *P. carinii* was found in one study to increase the yield of induced sputum from 79 percent with Diff-Quik to 91 percent with IFA.[19] A simpler, single-step direct fluorescence assay has recently been developed. The sensitivity of this assay is equivalent to Diff-Quik but it requires less time and effort.[20] The use of a histologic and immunofluorescence stain together is preferred in our laboratory and many others.

In addition to special studies for *Pneumocystis*, induced sputum may be examined for acid-fast bacilli and fungi and cultured for mycobacteria, fungi, and viruses. Induced purulent sputum should be Gram-stained and cultured for bacteria; *P. carinii* stains should not be performed on these specimens as polymorphonuclear leucocytes and exudate interfere with stains for *P. carinii*.

If a specific diagnosis is not established on induced sputum, a more definitive diagnostic procedure should be performed.[17] Fiberoptic bronchoscopy with bronchoalveolar lavage (BAL) is the preferred method for diagnosing AIDS-related pulmonary disease. The same stains and cultures used for induced sputum can be used for BAL fluid. Sputum induction alone should never be used to rule out PCP or other infections. In one study, 46 percent of patients with a negative induced sputum had PCP diagnosed at bronchoscopy.[21] Thus, while induced sputum may attain a yield of 80 to 90 percent, the negative predictive value of induced sputum is only about 50 percent. If no diagnosis is made by BAL, then a repeat bronchos-

Table 2. Radiographic Patterns of Pneumonitis in Patients with HIV Infection

Patterns	Likely Etiology
Interstitial infiltrates	PCP Tuberculosis Nonspecific interstitial pneumonitis Kaposi's sarcoma Bacteria CMV Fungi
Focal infiltrates	Pyogenic bacteria Tuberculosis Fungi PCP
Adenopathy	Mycobacteria Lymphoma Kaposi's sarcoma
Effusion	Kaposi's sarcoma Tuberculosis Pyogenic bacteria
Normal	PCP

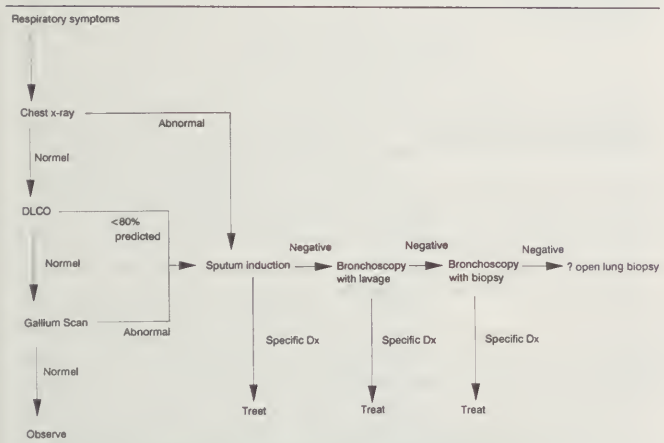


Figure 1. Algorithm for evaluation of patients with HIV infection and suspected pulmonary diseases. (Adapted from Hopewell PC. Infect Dis Clin N Am 1988;2:409-18.)

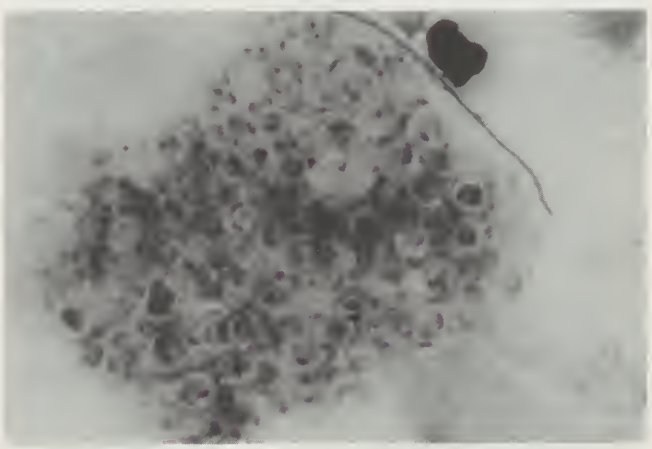


Figure 2. Modified Giemsa stain (Diff-Quick) of induced sputum shaving a clump of P. carinii systs and trophozoites (100x) (Courtesy of NA Virani MD).

copy and transbronchial biopsy may be performed. The yield of BAL and biopsy together approaches 100 percent. Rarely, patients deteriorating with an undiagnosed pulmonary process may benefit from open lung biopsy.

Therapy

The availability of a murine model of PCP has played a major role in developing treatment regimens for PCP.[8] More recently, a culture system for *P. carinii* and isolation of *P. carinii* dihydrofolate reductase have augmented the search for additional therapies.

Several advances in the drug therapy of acute PCP have been made in recent years. Table 3 lists the drugs used to treat PCP. Trimethoprim-sulfamethoxazole (TMP-SMX) is the gold standard of treatment.[22] The drugs may be administered intravenously or orally at doses of 15 mg/kg day of trimethoprim. Early trials and clinical experience using higher doses (20 mg/kg/day trimethoprim) showed a very high rate of adverse reactions.[23] Use of the lower dose with dose adjustment for toxicity results in more successful completion of therapy.[24] Adverse reactions include anemia, granulocytopenia, hepatitis, rash, and fever. Pentamidine isoethionate has been shown equally effective as TMP-SMX in clinical trials. Toxicity of pentamidine, which includes neutropenia, hepatitis, azotemia, and hypoglycemia, may be reduced by using a lower-dose, 3mg/kg per day.[25] The efficacy of the lower-dose regime, however, is not known. A standard course of anti-*Pneumocystis* therapy is two to three weeks.

The combination of dapsone and trimethoprim has been shown in clinical trials to be as safe as TMP-SMX and significantly less toxic in treating patients with mild PCP ($PaO_2 > 60$ torr).[26,27] Moreover, this regimen is attractive because it can be given on an ambulatory basis. While patients generally have fewer adverse effects, cutaneous reactions, anemia, and methemoglobinemia do occur. Dapsone should not be given to patients with G-6-PD deficiency.

A number of investigational therapies for PCP are available for selected patients. Aerosolized pentamidine (600 mg/day given via a Respigard II nebulizer) was shown in an open trial to be highly effective and extremely well-tolerated in patients with mild to moderate acute PCP ($PaO_2 > 50$ torr).[28] A large-scale, randomized clinical trial comparing aerosol pentamidine with TMP-SMX has been completed recently, but the findings have not been released.

The combination of primaquine (15-30 mg base/day) and clindamycin has shown promise as salvage therapy for patients who failed or were intolerant to other therapies for PCP.[29] Larger, controlled clinical trials of this regimen are under way.

Other investigational agents also have been evaluated in uncontrolled trials. Trimetrexate, a methotrexate analogue with considerable activity against *P. carinii* dihydrofolate reductase, was found to be moderately effective in an open trial as salvage therapy or initial therapy for PCP.[30] Eflornithine (DFMO) has been given with some efficacy to a number of patients with AIDS-related PCP who failed other therapies. However, lack of a standardized protocol makes assessment of the data difficult.

Table 3. Treatment Regimens for PCP

Agent(s)	Dose and Route
Accepted	
Trimethoprim-sulfamethoxazole	15 mg/kg/day-75/kg/day IV or p.o.
Pentamidine isoethionate	4 mg/kg/day IV
Dapsone-trimethoprim	4-100 mg/day p.o. 15-20 mg/kg/day
Experimental	
Pentamidine isoethionate	600 mg/day nebulized
Trimetrexate	30-45 mg/M^2/day
Primaquine-clindamycin	15-30 mg/day-300-600 mg q 6-8h p.o. and IV or p.o.
Eflornithine (DFMO)	

Adjunctive Therapy

In addition to antimicrobial therapy, other supportive measures are useful in managing patients with acute PCP. Supplemental oxygen is frequently needed; a variety of delivery systems can maintain the PaO_2 above 60 torr. Patients with severe PCP may benefit from continuous positive airway pressure. When respiratory failure occurs, mechanical ventilation with use of relatively large tidal volumes (12-15 cc/kg) and positive end-expiratory pressure is indicated. Because severe PCP can cause noncardiogenic pulmonary edema, careful fluid management and judicious use of diuretics are beneficial.

There is considerable controversy regarding the use of corticosteriods in patients with severe PCP. Several unpublished clinical trials reportedly have conflicting results from administration of corticosteriods to patients with PCP. While there may be some benefits to early use of high-dose corticosteriods to prevent development of respiratory failure in patients with PCP, their use after the onset of respiratory insufficiency does not appear effective. Routine use of corticosteriods in all patients with PCP is not warranted at this time.

Prevention of PCP

Because PCP can be predicted to some extent in patients with advanced HIV infection, chemoprophylaxis to prevent PCP is a rational strategy. HIV seropositive persons with low CD-4+ lymphocyte counts ($<200mm^3$) and patients who have had an episode of PCP or another AIDS-associated opportunistic infection are at high risk of PCP. Prevention of PCP and other opportunistic infections in patients with HIV disease was reviewed in the February issue of *MMJ*.[31] In brief, both TMP-

SMX (5 mg TMP/kg/day) and aerosolized pentamidine (600 mg via the Respiragard II nebulizer every 4 weeks) have proved efficacious in reducing the incidence of PCP in patients with HIV.[4,22,31-34]

There is increasing evidence that the use of PCP prophylaxis and antiretroviral chemotherapy have improved survival of patients following an initial episode of PCP.[35] For example, prior to 1985, the median survival of patients diagnosed with PCP was 10 months in one study.[36] In 1987, the median survival increased to 18 months,[37] presumably as a result of the introduction of zidovudine and more widespread use of antimicrobial agents to prevent PCP recurrences. As the management of HIV infection becomes more proactive, early identification of persons at risk for PCP and initiation of preventive therapy will become more routine, and the clinical impact of *P. carinii* may be ameliorated.

References

1. Erdman JC, Kovacs JA, Masur H et al. Ribosomal RNA sequence shows *Pneumocystis carinii* to be a member of the fungi. Nature 1988;334:519-22.
2. Masur H, Lane HC, Kovac JA et al. Pneumocystis pneumonia; From bench to clinic. Ann Intern Med 1989;111:813-26.
3. Rainer CA, Feigal DW, Leoung G et al. Prognosis and natural history of *Pneumocystis carinii* pneumonia: Indicators for early and late survival. Abstracts of III International Conference on AIDS, Washington, DC. 1987;1:189.
4. Guidelines for prophylaxis against *Pneumocystis carinii* pneumonitis. MMWR 36S-5.
5. Yamaguchi E, Charache P, Chaisson RE. Increasing incidence of pneumococcal infections in an inner city hospital, 1985-1989. Am Rev Respir Dis, in press.
6. Chaisson RE, Slutkin G. Tuberculosis and HIV infection. J Infect Dis 1989;159:96-100.
7. Chaisson RE. Bacterial pneumonia in patients with human immunodeficiency virus infection. Semin Respir Infect 1989;4:1-6.
8. Hughes WT. *Pneumocystis carinii* pneumonia. Boca Raton, FL: CRC Press, 1987.
9. Montgomery AB, Lipavsky A, Turner J. Increased accumulation of pulmonary extravascular protein in AIDS patients with *Pneumocystis carinii* pneumonia. Am Rev Respir Dis 1987;135:191 (abstr).
10. Montgomery AB. *Pneumocystis carinii* pneumonia in patients with the acquired immunodeficiency syndrome: pathophysiology, therapy, and prevention. Semin Respir Infect 1989;4:102-10.
11. Kovacs JA, Hiemenz JW, Macher AM et al. *Pneumocystis carinii* pneumonia: A comprison between patients with the acquired immunodeficiency syndrome and patients with other immunodeficiencies. Ann Intern Med 1984;100:663-71.
12. Pitchenik AE, Cole C, Russell BW et al. Tuberculosis, atypical mycobacteriosis, and the acquired immunodeficiency syndrome among Haitian and non-Haitian patients in South Florida. Ann Intern Med 1984;101:641-45.
13. Selwyn PA, Hartel D, Lewis VA et al. A prospective study of the risk of tuberculosis among intravenous drug users with human immunodeficiency virus infection. N Engl J Med 1989;320:545-50.
14. Selwyn PA, Feingold AR, Hartel D et al. Increased risk of bacterial pneumonia in HIV-infected intravenous drug users without AIDS. AIDS 1988;2:267-72.
15. Gerberding JL, Krieger J, Sande MA. Recurrent bacteremic infection with *S. pneumoniae* in patients with AIDS virus (AV) infection (Abstract 443). Program and abstracts of the 26th Interscience Conference on Antimicrobial Agents and Chemotherapy. Washington, DC, American Society for Microbiology, 1986:177.
16. Suffredini AF, Ognibene FP, Lack EE et al. Nonspecific interstitial pneumonitis: A common cause of pulmonary disease in the acquired immunodeficiency syndrome. Ann Intern Med 1987;107:7-13.
17. Hopewell PC. Diagnosis of *Pneumocystis carinii* pneumonia. Infect Dis Clin N Am 1988;2:409-18.
18. Ng VL, Gartner I, Weymouth LA et al. The use of mucolysed sputum for the identification of pulmonary pathogens associated with human immunodeficiency virus infection. Arch Pathol Lab Med 1989;113:488-93.
19. Kovacs JA, Ng VS, Masur H et al. Diagnosis of *Pneumocystis carinii* pneumonia: Improved detection in sputum with use of monoclonal antibodies. N Engl J Med 1988;318:589-93.
20. Virani NA, Ng VL, Chaisson RE et al. Rapid diagnosis of *Pneumocystis carinii* pneumonia (PCP) in patients with AIDS using a direct fluorescent monoclonal antibody (DFA) assay. Abstract TBP 11. Fifth International Conference on AIDS Montreal, June 4-9, 1989.
21. Chaisson RE, Hopewell PC. Empiric diagnosis of Pneumocystis pneumonia. JAMA 1987;258:3385.
22. Kovac JA, Masur H. *Pneumocystis carinii* pneumonia: Therapy and prophylaxis. J Infect Dis 1988;158:254-59.
23. Wharton JM, Coleman DL, Wofsy CB et al. Trimethoprim-sulfamethoxazole or pentamidine for *Pneumocystis carinii* pneumonia in the acquired immunodeficiency syndrome: A prospective randomized trial. Ann Intern Med 1986;105:37-44.
24. Sattler FR, Cowan R, Nielson DM et al. Trimethoprim-sulfamethoxazole compared with pentamidine for treatment of *Pneumocystis carinii* pneumonia in the acquired immunodeficiency syndrome, a prospective noncrossover study. Ann Intern Med 1988;109:280-87.
25. Conte JE, Hollander H, Golden JA. Inhaled or reduced-dose intraveous pentamidine for *Pneumocystis carinii* pneumonia. Ann Intern Med 1987;107:495-98.
26. Leoung GS, Mills J, Hopewell PC et al. Dapsone-trimethoprim for *Pneumocystis carinii* penumonia in the acquired immunodeficiency syndrome. Ann Intern Med 1986;105:45-48.
27. Medina I, Leoung G, Mills J et al. A randomized double blind trial of trimethoprim sulfamethoxazole versus dapsone trimethoprim for first episode *Pneumocystis carinii* penumonia in AIDS. Abstracts of the Twenty Seventh Interscience conference on Antimicrobial Agents and Chemotherapy, New York 1987;1:261 (abstr).
28. Montgomery AB, Debs RJ, Luce JM et al. Aerosolized pentamidine as sole therapy for *Pneumocystis carinii* pneumonia in patients with acquired immunodeficiency syndrome. Lancet 1987;2:480-83.
29. Toma E, Fournier S, Poisson M et al. Clindamycin with primaquine for *Pneumocystis carinii* pneumonia. Lancet 1989;1:1046-48.
30. Allegra CJ, Chabner BA, Tuazon CU et al. Trimetrexate for the treatment of *Pneumocystis carinii* pneumonia in patients with the acquired immunodeficiency syndrome. N Engl J Med 1987;317:978-85.
31. Chaisson RE. Prevention of opportunistic infections in patients with human immunodeficiency virus infection. MMJ 1990;39:156-60.
32. Leoung GS, Montgomery AB, Abrams DI et al. Aerosol pentamidine for *Pneumocystis carinii* pneumonia. A randomized trial of 439 patients. The IV International Conference on AIDS 1988;1:419 (abstr).
33. Girard P-M, Landman R, Gaudebout C et al. Prevention of *Pneumocystis carinii* pneumonia relapse by pentamidine aerosol in zidovudine-treated AIDS patients. Lancet 1989;1:1348-53.
34. Fisch MA, Dickinson GM, LaVoie L. Safety and efficacy of sulfamethozazole and trimethoprim chemoprophylaxis for *Pneumocystis carinii* pneumonia in AIDS. JAMA 1988;259:1185-89.
35. Chaisson RE. Living with AIDS. JAMA 1990;263:434-36.
36. Bacchetti P, Osmond D, Chaisson RE et al. Patterns of survival in the acquired immunodeficiency syndrome. J Infect Dis 1988;157:1044-47.
37. Lemp GF, Pane SF, Neal D et al. Survival trends for patients with AIDS. JAMA 1990;263:402-406.

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ˈad-və-kət-, kāt\n
1: one that pleads the cause of another; specif: one that pleads the cause of another before a tribunal or judicial court
2: one that defends or maintains a cause or proposal

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Management of Sickle Cell Anemia in Children

George J. Dover MD

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Approximately 1 in 500 black American births results in children who have sickle cell (SS) disease; they are rarely symptomatic until 6 months of age. The mortality rate of SS in children under age 12 is between 10 and 15 percent. Half this mortality occurs before age 2, and most is due to overwhelming infections.

Sickle cell (SS) disease is a genetic disorder involving adult hemoglobin, a tetramer of two alpha and two beta globin molecules. In SS disease both beta globin molecules contain a valine at the sixth amino acid position rather than a glutamine. The precise amino acid substitution has been known for over 30 years.[1] This abnormal hemoglobin, designated sickle hemoglobin (Hb S, $\alpha_2 \beta^S{}_2$), under conditions of low pH, low oxygen tensions, or dehydration tends to polymerize within the red cell, leading to marked distortion of the shape of the red cell and increased rigidity of that cell. Red cells containing only Hb S have a shortened survival time, leading to a chronic hemolytic anemia. Furthermore, since these abnormal red cells cannot easily traverse small precapillary arterioles, individuals with SS disease often have acute and chronic vaso-occlusive episodes resulting in pain and ongoing vital organ destruction.

Sickle cell disease is extremely common in the black population. Approximately 1 in 10 (around 8 percent) of black Americans are carriers for one abnormal sickle gene (Hb AS, $\alpha_2, \beta^A{}_2, \alpha_2 \beta^S{}_2$). Carriers for sickle cell disease, termed sickle trait, are not anemic and essentially are asymptomatic. Approximately 1 in 500 births in the American black population results in children who are homozygous for the beta-S globin mutation, sickle cell anemia. Other racial groups, including Mediterranean populations (Italians and Greeks), Eastern Asian populations, and Indian populations have lower frequencies of SS disease.

The complications of SS disease in children are quite different from those seen in adults. Because of very high fetal hemoglobin (Hb F) levels at birth, children with sickle cell disease are rarely symptomatic until after six months of age. They do, however, begin to develop anemia around 12 weeks old. The earliest vaso-occlusive events seen in SS disease are sudden painful swelling of the hands and the feet (hand-foot syndrome). Colic-like symptomatology has often been described in children with SS disease under 1 year old. When the child is older the vaso-occlusive crises take on more characteristic forms of acute pain and fever

both in the extremities and the abdomen and may mimic acute osteomyelitis or an acute abdomen.

Children with SS disease also are predisposed to pulmonary complications. Sudden onset of chest pain, respiratory distress, and infiltrates on a chest x-ray, however, can be due to either acute infection or infarctions of the lungs. For this reason, this complication often is referred to as chest syndrome. Another complication of sickle cell disease in childhood is the presentation of strokes. Between 5 and 10 percent of children with SS disease may present with headaches, seizures, or sudden hemiplegia indicating vaso-occlusive phenomena involving the large vessels of the brain.

Beginning at 3 months old SS children also develop functional asplenia. At this time the spleen may be enlarged but is unable to filter and remove bacteria from the blood. This functional asplenia leads to a marked increased in susceptibility to infections, particularly to highly encapsulated organisms such as *S. pneumoniae* and *Hemophilus influenzae*. The mortality rate for SS children under age 12 is between 10 and 15 percent. Half this mortality occurs before age 2, and most mortality is due to overwhelming infections.

Proved Therapies

Table 1 lists the proven effective forms of therapy for SS children. It is paradoxical that a disease for which we have known the genetic mutation for over 30 years does not have more definitive therapies. Although the abnormalities of both the red cell and the hemoglobin within the red cell have been well established, preventive measures for the more severe problems such as vaso-occlusive crises and chronic organ damage are not available.

Prenatal Diagnosis

Landmark contributions to the prenatal diagnosis of sickle cell disease have been made by Dr. Haig Kazazian at Johns Hopkins University.[2] Because the precise mutation in the DNA nucleotide sequence is known, it is quite easy using modern molecular biology techniques to determine whether a fetus carries the gene for sickle cell disease in the heterozygous state (sickle trait) or in the homozygous state (SS disease). The use of chorionic villus biopsy, polymerase chain reaction amplification of the beta-globin region, and nonradioactive labeling techniques allows a prenatal diagnostic laboratory accurately to determine the genotype of fetus. Although the technology for prenatal diagnosis of SS disease has been available for over 10 years, it is not as widely used as is testing for other genetic disorders. This undoubtedly relates to the perceived variability in the severity of SS disease by physicians and families, the lack of education of the at-risk populations regarding prenatal diagnosis, and incomplete identification of carrier status of potential parents.

Table 1. Proved Therapies for Sickle Cell Desease

Prenatal diagnosis
Neonatal screening, genetic counseling and education
Comprehensive well-child care
Penicillin prophylaxis
Vaccines against H. influenzae and S. Pneumoniae

Newborn Screening

Techniques available to screen newborn blood for the presence of Hb S have been present for over 15 years. However, routine neonatal screening for sickle cell disease and other hemoglobinopathies did not gain wide acceptance until approximately 5 years ago. In the early 1980s it became apparent that neonatal diagnosis of children with SS disease significantly decreased morbidity and mortality.[3] Recently, the recognition that prophylactic antibiotic therapy offers significant protection to infants with SS disease[4] has led to the conclusion that all children at risk should be screened routinely in the newborn period.[5] The Maryland State Health Department under the direction of Dr. Susan Panny, Chief of the Division of Heredity Disorders of the Maryland Department of Health and Mental Hygiene, began pilot studies (in July 1985) to screen all newborns in Maryland. Since then over 200 children with sickle cell disease have been identified (Table 2).

The present mechanism for newborn screening includes isoelectric focusing of samples of blood obtained in the nursery as a part of the routine genetic screening performed in all children. Results of hemoglobin screening are known within one week of arrival in the State Health Department. The physician of record at the hospital of birth and the family are notified of abnormal results by the state hemoglobinopathy program nurse coordinator.

Initial newborn screening tests have approximately a 10 to 15 percent rate of false-positives. In some children the presence of normal adult hemoglobin (Hb A), is below the level that can be detected by isoelectric focusing. Therefore, some children who produce both Hb A and Hb S (sickle trait) are incorrectly suspected of having SS disease. For this reason, a second screening test is requested on all suspected SS infants after one month of age. By one month, sufficient Hb A is present in sickle trait children to allow the isoelectric

Table 2. Newborn Screening in Maryland

Year	Total Screened	SS Disease*
1986	63,777	42
1987	66,215	56
1988	68,449	45
1989 (to July)	35,017	16

*Includes diagnoses of SS, SC, and S-Beta Thalassemia

focusing technique to distinguish SS disease from sickle trait.

With confirmation on the second test that the child has sickle cell anemia, the family and physicians are notified that the child should be referred to one of six pediatric hematology consultation services in Maryland or the District of Columbia (Johns Hopkins University Medical School, Department of Pediatrics; University of Maryland Medical School, Department of Pediatrics; Sinai Hospital, Department of Pediatrics; Howard University Sickle Cell Center; Georgetown University Hospital; and the Children's Hospital National Medical Center). The role of these centers is to confirm the diagnosis of SS disease, to educate the parents about the early problems of SS disease including the importance of antibiotic prophylaxis, and to provide genetic counseling for the families of affected SS children.

Early identification of children with SS disease is only part of the newborn screening program in Maryland. Another important part of the program is the education of the parents of SS newborns at the referring hematology centers and the genetic counseling of these families. This is an ongoing process delivered by the hematology centers and state-funded community directed groups such as the Association for Sickle Cell Services, Education, Research, and Treatment (ASSERT). An integral part of the ongoing care of children identified in the newborn screening programs are the state public health nurses who help coordinate referral to appropriate primary care physicians and arrange follow up to appropriate sickle cell referral centers

Comprehensive Well-Child Care

Prior to the era of antibiotic prophylaxis or pneumococcal vaccines, it was documented that the mortality and morbidity of SS disease in children could be reduced significantly by early diagnosis and referral of SS children to comprehensive well-child care programs in which routine immunizations and health assessments are available.[3] In Maryland, if a child is diagnosed as having significant hemoglobinopathy such as SS disease, they automatically qualify for Children's Medical Services (CMS). CMS will cover payment for all routine pediatric care, vaccinations, and health assessments for children with sickle cell disease as well as subspecialty care for acute problems and periodic evaluations by pediatric hematology centers.

Penicillin Prophylaxis

Infection is the most common cause of death in children with SS disease. The risk of pneumococcal sepsis is 400 times that of normal children. In 1985 the results of a nationwide controlled clinical trial of penicillin prophylaxis in children with SS disease were completed.[4] This study confirmed that twice-daily oral penicillin markedly reduces if not eliminates the attack rate for pneumococcal infections in children with sickle cell disease (Table 3). In infancy, penicillin is given in liquid form, and prescriptions must be refilled on a 10-day to 2-week basis. When the children become older they can be switched to tablets (which do not necessitate such frequent prescription refills). It is unknown at what age penicillin prophylaxis should be discontinued.

It is generally accepted that the increase attack rate of pneumococcal infections seems to be highest in the children under 4 years old. Whether children on penicillin prophylaxis will continue to be susceptible for longer periods of time is under investigation. At present, most centers recommend continuation of penicillin prophylaxis until after the second booster vaccination for pneumococcal vaccines, usually performed at the age of 4 to 6 years.

It must be emphasized that the physician cannot assume that children with SS disease are on penicillin. Compliance with this regimen is likely to be as low as that seen in other well-documented programs involving prophylactic antibiotics, for example, rheumatic heart disease. Several studies indicate that noncompliance with prophylactic antibiotics may be anywhere from 50 to 75 percent of cases. It therefore is not surprising that cases of pneumococcal infections continue to occur in Maryland and throughout the country. In most of these cases penicillin prophylaxis had not been given to the children prior to the onset of infection.

It also should be emphasized that prophylaxis with antibiotics other than penicillin is *not* indicated. Although it is clear that penicillin prophylaxis will not protect against *H. influenzae* infections, the safety or efficacy of prophylactic broad-spectrum antibiotics in SS disease is unknown and should not be attempted. It is hoped the increased vulnerability to *H. influenzae* infections will be corrected with the newer forms of vaccinations.

Pneumococcal and Hemophilus Influenza Vaccinations

In 1977 Ammann reported the effectiveness of a polyvalent pneumococcal vaccine in older children with SS disease.[6] The present pneumococcal vaccines include antigens to 23 different serotypes of *S. pneumoniae*. Unfortunately, young children with sickle cell disease do not respond as well to the vaccine as do older ones. The present recommendation is that all SS children at the age of two should be given pneumococcal vaccine. It is clear that the response

Table 3. Penicillin Prophylaxis in SS Disease

Age	Dose
<3 yrs.	125 mg B.I.D. orally
3-5 yrs.	250 mg B.I.D. orally

rate to the vaccine is suboptimal. Penicillin prophylaxis should be continued after the pneumococcal vaccine. A booster dose of the vaccine between four and six years of age leads to a more uniform response and is not associated with any significant side effects. As with penicillin prophylaxis, there are clear cases of pneumococcal infections documented in Maryland and nationwide following vaccination with the present vaccines. Therefore, the physician taking care of a child with SS disease cannot be certain that an immunized child is protected from all pneumococcal infections.

It is now recommended that all SS children be given the *H. influenzae* vaccine at 18 months old. There is no prospective data available determining whether SS children have a decreased attack rate to *H. influenzae* following this vaccine. Early results seem to indicate that a *H. influenzae* vaccine may soon be available for children at around six months of age. These early vaccines will improve the protection of SS infants who are more susceptible to *H. influenzae* infections.

Transfusions

There are relatively few indications for transfusion in children with SS disease. Routine vaso-occlusive crises and periodic infections are not indications for transfusion. Children with SS disease will rarely develop bone marrow aplasia (aplastic crisis). Most recently it has been shown that parvovirus, the etiologic agent of Fifths disease, can cause aplastic crisis in SS children. Other viruses (including the EB virus and hepatitis virus) also have been implicated in the cause of aplastic crises in SS children. SS children with aplastic crises will present with profound anemia and absent or low reticulocyte counts. Transfusion in these children is indicated, particularly when the anemia is associated with fever or with heart failure. In addition, children who present with chest syndrome with significant hypoxia (arterial pO_2 less than 75) may require either simple transfusions or exchange transfusions. SS children who present with clear evidence of strokes require immediate exchange transfusions to quickly reduce their percent Hb S.

Chronic transfusion programs rarely are indicated in SS children because of significant risk of iron overload, alloimmunization, and transfusion-related virus infections. At present, stroke is the only indication for chronic transfusions of SS children. The natural history of strokes in SS children is that they will repeat usually within a year following the initial stroke. Often the second stroke will be more severe, leaving the SS child with a greater neurologic deficit.

Periodic transfusions for SS children are indicated when surgery requiring general anesthesia is anticipated. Under strictly controlled ventilation during operative procedures SS children do not have problems. However, during the immediate postoperative period, when a child may be in pain or heavily sedated, SS children are a great risk of becoming hypoxic. At present SS children followed at The Johns Hopkins University Medical School are given a series of transfusions to reduce their percent sickle hemoglobin to less than 40 percent prior to any elective surgery. Should emergency surgery be necessary, exchange transfusions are performed to reduce sickle hemoglobin levels to less than 40 percent.

Experimental Therapies: Adult Trials

No effective forms of therapy are available that will prevent either acute vaso-occlusive crises or ongoing continuous organ damage in individuals with SS disease. Investigators at The Johns Hopkins University Medical School (Dr. Samuel Charache and Dr. George Dover) have been involved in the development of drugs that might prevent such complications. It should be emphasized that all clinical trials with these experimental drugs are performed in adults; they will not be available to children until their safety and efficacy have been demonstrated in the adult trials. The therapeutic principal behind the research trials at Johns Hopkins is the observation that some drugs increase fetal hemoglobin (Hb F) production in SS individuals. The presence of Hb F in the red cell decreases the tendency of Hb S to polymerize. Levels of Hb F of between 20 to 25 percent within the red cell clearly prevent sickling. Although Hb F levels in SS individuals are higher than in a normal population (Hb F averages around 6 percent in SS patients as compared to less than 1 percent in normal adults), these levels are not sufficient to protect SS individuals from the sickling process. However, rare individuals who have greater than 20 percent Hb F seem to have extremely mild (if not absent) disease. Furthermore, some investigators have shown that individuals with greater than 15 percent Hb F may be less symptomatic than those with lower levels of Hb F.

Drs. Charache and Dover were the first to treat an SS adult with an anticancer drug previously shown in low dosage to increase Hb F in animals.[7] When 5-azacytidine was given to individuals at Johns Hopkins with SS disease, elevations in Hb F were increased to above 20 percent. Patients treated for over two years seem to show a decrease in vaso-occlusive crises. However, no control clinical trials were done with this drug, and improvement may have been due to a placebo effect. In 1982 it became apparent that another drug, hydroxyurea, could also increase Hb F production (see Figure). Since then laboratories under the direction of Dr. Dover at Johns Hopkins have coordinated and followed over 75 SS patients on a variety of protocols with hydroxyurea. At present, a multicenter clinical trial is being coordinated by Drs. Charache and Dover to determine the safest therapeutic dose of hydroxyurea that can be given to patients with SS disease. This trial will be completed in 1990, and if the results

seem encouraging, a definitive control clinical trial of hydroxyurea will be performed. The intent is to raise the Hb F levels high enough with hydroxyurea to reduce sickling to the extent that vaso-occlusive crisis and ongoing organ damage will be reduced in these patients. If the controlled clinical trial is approved, it will take at least three to five years to be completed.

Summary

The etiology and much of the pathophysiology of SS disease has been clearly elucidated over the last 25 to 30 years. Unfortunately, this knowledge has not led to proved effective therapies that prevent vaso-occlusive crises and ongoing organ damage. Our failure to develop effective therapies for SS disease some 30 years after we elucidated this disorder's precise etiology should serve as a warning that therapy for genetic disorders does not always rapidly follow understanding of etiology.

Much improvement has been made in our ability to diagnose SS disease prenatally or in newborns. We have further learned that comprehensive well-child health programs that include prophylactic penicillin and effective vaccinations reduce the morbidity and mortality of SS disease in children. Acceptance of these effective forms of therapy evolved in the 1980s. We hope new therapies, possibly with agents that increase Hb F production, will become available in the 1990s.

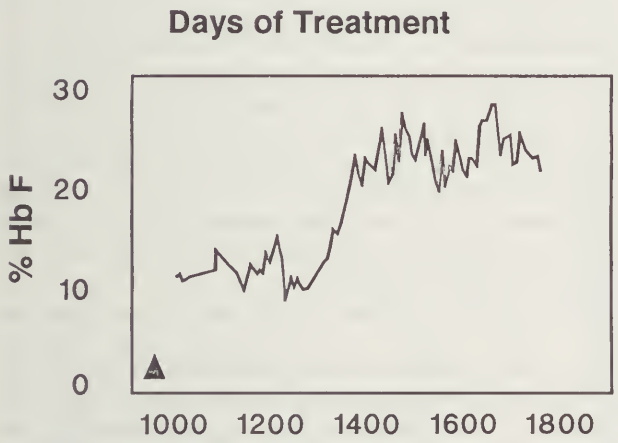


Figure. Changes in Percent Hb F of SS Adult Patient Treated with Hydroxyurea. From day 800 to 1,260 the patient was on oral Hydroxyurea 3 or 4 days a week. From day 1,260 to 1,800 the Hydroxyurea was given daily (7 days a week). The triangle indicates pretherapy Hb F level.

References

1. Ingram VM. Gene mutations in human hemoglobins: The chemical difference between normal and sickle cell hemoglobin. Nature 1956;178:792-94.
2. Saki RK, Chu-an C, Levinson CH et al. Diagnosis of sickle cell anemia and Beta-thalassemia with enzymatically amplified DNA and non-radioactive allele-specific oligonucleotide probes. N Engl J Med 1988;319:537-41.
3. Powars D, Overturf G, Weiss J, Lee S, Chan L. Pneumococcal septicemia in children with sickle cell anemia: Changing trend of survival. JAMA 1981;245:1839-42.
4. Gaston M, Verter JI, Woods G. Prophylaxis with oral penicillin in children with sickle cell anemia: A randomized trial. N Engl J Med 1986;394:1593-99.
5. National Institutes of Health Consensus Panel. Newborn screening for sickle cell disease and other hemoglobinopathies. NIH Consensus Development Conference Statement 1987;6:1-7.
6. Ammann AJ, Addiego J, Wava DW. Polyvalent pneumococcal polysaccharide immunization of patients with sickle cell anemia and patients with splenectomy. N Engl J Med 1977;297:897-900.
7. Charache S, Dover GJ, Smith K, Talbot CC, Moyer M, Boyer SH. Treatment of sickle cell anemia with 5-azacytidine results in increased fetal hemoglobin production and is associated with nonrandom hypomethylation of DNA around the gamma-delta-beta globin gene complex. Proc Natl Acad Sci USA 1983;80:4842-46. ■

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Thrombolytic Therapy For Myocardial Infarction

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Thrombolytic therapy has provided a practical means of reducing infarct size and infarct-related mortality. Clinicians must weigh the aparent risks and benefits of thrombolytic therapy: if the ischemic region is large, if treatment can be applied early enough to salvage ischemic mycardium, and if there is no obvious risk of life-threatening hemorrhage, it is likely the patient will benefit from thrombolytic therapy.

In the decade since DeWood and colleagues demonstrated that thrombotic occlusion of epicardial coronary arteries is the proximate pathophysiologic event in the overwhelming majority of acute myocardial infarctions, more than 40,000 patients have been enrolled in randomized trials of thrombolytic therapy, which have established conclusively that the administration of thrombolytic agents in the first four to six hours of myocardial infarction reduces mortality.[1-5] This reduction in mortality is concentrated among patients with anterior infarction and those treated very early. The latter observations raise a series of important questions. Will thrombolytic therapy preserve left ventricular function or reduce mortality among patients with inferior infarction, the elderly, patients with non-ST segment elevation infarcts, or patients presenting late (more than six hours after the onset of symptoms)? What is appropriate adjunctive medical therapy to prevent reinfarction and death after thrombolysis? Is it possible, on the basis of available data, to identify a thrombolytic drug of choice?

Inferior Infarction

GISSI and ISIS-2 reported a mortality rate of 8 percent for patients with inferior infarction not receiving thrombolytic therapy and 7 percent for those treated with streptokinase.[1,2] Although this difference was not statistically significant ($p = 0.09$), large numbers of patients with inferior infarction probably benefited from thrombolytic therapy in these two trials. In GISSI, patients were eligible for entry as much as 12 hours after the onset of symptoms, but benefit was confined to patients treated within 6 hours. In ISIS-2, benefit was greatest when treatment was initiated within 3 hours of the onset of infarction, and benefit decreased steadily thereafter. The investigators in these trials have reported mortality according to infarct location and time to treatment but not both. Thus, it seems highly likely that the benefit of streptokinase in patients with inferior infarction was diluted by the inclusion of large numbers of patients more than 6 hours after symptom onset. It is just as likely that treatment of patients with inferior infarction within 3 or 4 hours will reduce mortality risk.

A second line of evidence supporting the conclusion that thrombolytic therapy may reduce the morbidity and mortality in inferior myocardial infarction is derived from the relationship between the size of an ischemic region and the benefit of thrombolytic therapy. Experimental and clinical studies have shown repeatedly that the size of an ischemic region, its inverse, ejection fraction, or clinical variables related to ejection fraction (such as heart rate and blood pressure) more accurately predict the risk of death than does a simple classification of patients according to infarct location (Table 1).[6] Thus, for the typical patient with inferior infarction, who comes to medical attention two to four hours after the onset of symptoms, size of the ischemic region is the overwhelming determinant of benefit from thrombolytic therapy. A suggested list of patients with inferior infarction likely to benefit from thrombolytic therapy appears in Table 2. For the most part, these considerations apply to patients who can be treated within the four- to six-hour period within which human myocardial ischemia is thought to be reversible.

Hemodynamic compromise unresponsive to atropine should be considered as de facto evidence of a large ischemic region and life-threatening ventricular dysfunction. This may take the form of lung congestion if the left ventricle is involved or hypotension in the case of large right ventricular infarcts. Even in the absence of overt hemodynamic compromise, patients with widespread ST segment deviations should be regarded as having larger rather than smaller infarctions. This includes patients with ST segment elevation in leads V5 and V6 (in addition to leads 2, 3, and AVF), or, alternatively, patients with widespread precordial or lateral ST segment depression in addition to inferior ST segment elevation.

In the absence of specific contraindications, patients with previous anterior or lateral myocardial infarction also should be considered for thrombolytic therapy. Even when hemodynamically compensated, most such patients have fair or even poor left ventricular function. It is reasonable to believe that small amounts of myocardial salvage will substantially improve the functional status and life expectancy of such patients.

The last group of patients within the inferior infarction group generally considered eligible for thrombolytic therapy are the very young. Most young Americans with acute myocardial infarction have one or more risk factors, which make it likely they will sustain recurrent infarction in other locations in the years ahead. Even if thrombolytic therapy for inferior infarction does not substantially affect the short-term prognosis for such a patient, preservation of some inferior wall motion may substantially improve the long-term prognosis.

The Elderly

Treatment of elderly patients is an important issue because age, along with infarct size, is one of the two most powerful determinants of the mortality risk of acute myocardial infarction. Although the reduction in all-cause mortality achieved with streptokinase in the GISSI trial in patients over the age of 75 was not quite significant, there was a significant reduction with streptokinase in more than 3,400 patients over the age of 70 in ISIS-2 (Table 3). Highly significant reductions in mortality were reported in patients aged 65 to 75 in the ASSET study of tPA [3] and in patients aged 65 to 70 in the AIMS trial of APSAC.[5] Thus, there is abundant evidence of treatment-associated reduction in mortality in patients up to age 75, and there are, at a minimum, strong trends toward reduced mortality in patients over the age of 75.

There is a widespread misconception in this country that patients over the age of 75 are somehow not eligible for thrombolytic therapy. This misunderstanding seems attributable to the fact that many of the trials, and especially the NIH-sponsored Thrombolysis in Myocardial Infarction (TIMI) studies, have excluded patients over age 75. However, these ex-

Table 1. Relationship of Electrocardiographic Leads with ST Elevation to Mortality in Acute Myocardial Infarction

Number of Leads with ST Elevation	Mortality (%)	
	Streptokinase	Placebo
2 or 3	6.1	6.8
4 or 5	7.7	11.5
6 or 7	12.1	16.6
8 or 9	19.5	23.9

Source: From Mauri F, Gusparini M, Barbonaglia L et al. Prognostic significance of the extent of myocardial injury in acute myocardial infarction treated by streptokinase (the GISSI trial). Am J Cardiol 1989;63:1291-95.

Note: Number of leads with ST elevation predicted mortality risk more accurately than a simple classification of infarcts as anterior or inferior. Improvement in risk stratification also has been reported in ISIS-2 on the basis of admission heart rate and blood pressure.

Table 2. Candidates for Thrombolytic Therapy, Inferior Infarction

Hemodynamic compromise unresponsive to atropine
Widespread ST segment deviations
Previous non-inferior MI
Very early presentation
Young

Table 3. All Cause Mortality Among Elderly Patients in the Four Largest Randomized Trials of Thrombolytic Therapy

Study	Age	Mortality (%)		P-Value
		Control	Treatment	
Streptokinase:				
GISSI	>75	33	29	0.12
ISIS-2	>70	22	18	<0.02
tPA:				
ASSET	65-75	16	11	0.001
APSAC:				
AIMS	65-70	30	12	0.005

clusions have more to do with the logistics of randomized clinical trials and the decision by the TIMI study group to focus its attention on the value of highly invasive adjunctive therapy than on the inherent suitability of patients over the age of 75 for thrombolytic therapy.

As stated above, the evidence for benefit consists of a strong trend toward reduced mortality in more than 1,000 patients over the age of 75 in GISSI and a significant reduction in mortality in some 3,400 patients over the age of 70 in ISIS-2. Indeed, it seems probable that pooling of data from these two studies for patients over the age of 75 would yield a significant difference in favor of treatment. There is no evidence of increased mortality among elderly patients treated with thrombolytic agents, provided that the usual screening for patients at risk of serious bleeding occurs. In fact, the allegation of an increased bleeding risk in elderly patients is not fully substantiated. Investigators from Duke University and the TIMI study group have reported some increased risk of bleeding in elderly patients treated with tPA, but much of this excess bleeding occurred in conjunction with emergency or urgent angiography. In connection with a noninvasive approach to thrombolytic therapy, the ISIS-2 investigators reported that "there was no (significant) excess of bleeds among the 401 who are aged 80 or over... no evidence that the risk of treatment, in particular cerebral haemorrhage or other bleeding, were related to age."

A prudent interpretation of these data would include acknowledgment of the possibility of some increased risk of hemorrhage in elderly patients treated with thrombolytic therapy. However, there is no evidence that this risk of bleeding is prohibitive. The problem, then, seems to be one of refinement of patient-selection criteria. Patients should be in good general health, the infarct should be larger rather than smaller, and treatment should begin sooner rather than later.

Non-ST Segment Elevation Infarction

GISSI and ISIS-2 reported no reduction in mortality when patients with ischemic myocardial pain and ST segment depression were treated with streptokinase. In that most patients with ST segment depression infarction do not have total thrombotic occlusion of infarct artery, this result is perhaps not surprising. On the other hand, patients with total occlusion of the circumflex coronary artery or its major branches not infrequently present with ischemic myocardial pain, precordial ST segment depressions, and no ST segment elevations. It is therefore somewhat perplexing that there was not even a trend toward reduced mortality with treatment in this subgroup. Be that as it may, the available data do not support the widespread application of thrombolytic therapy to patients with ST segment depression infarcts. Exceptions to this rule would include patients with known high-grade circumflex disease, in whom ST segment depression in the precordial leads could reasonably be attributed to true posterior transmural ischemia, and patients with widespread ST segment depression and hemodynamic compromise. The latter group comprises patients with left main disease, its equivalent, or high-grade proximal LAD disease. The usual treatment for these patients is insertion of an aortic counterpulsation balloon and emergency cardiac catheterization, with definitive therapy based on the results of the coronary arteriogram. In community hospitals that do not offer aortic balloon counterpulsation, the very high mortality rate associated with this particular presentation would seem to justify administration of thrombolytic therapy as a temporizing measure until the patient can be transferred to a tertiary center.

Late Treatment

ISIS-2 reported a significant reduction in mortality when patients were treated with streptokinase 6 to 24 hours after the onset of infarction, but the GISSI investigators observed no reduction in mortality when streptokinase was given 6 to 12 hours after the onset of infarction. Table 4 lists the combined results of the GISSI and ISIS-2 6- to 12-hour treatment groups as well as the results of treatment at 12 to 24 hours from the ISIS-2 study. Together, these studies indicate fairly strong but ultimately nonsignificant trends toward reduced mortality with streptokinase. Whether this statistical nonsignificance is due to inadequate sample size, insufficient quantities of viable myocardium at these late points in time, or other factors is unknown.

Two statements can be made with regard to late treatment. First, ongoing chest pain is probably a symptom of active ischemia, and clinicians should pay as much heed as to the patient's description of severity of pain as to when the pain began. For the rare patient who presents with ongoing, severe ischemic myocardial pain, ST segment elevations, and well-preserved R-waves, thrombolytic therapy is probably beneficial even when started late.

A second group likely to benefit includes patients with large infarcts, usually anterior infarcts, treated at 6 to 12 hours. Two lines of evidence support this approach. First, animal studies have shown consistently that late reperfusion (reperfusion too late to salvage ischemic myocardium) reduces infarct expansion. Infarct expansion is a pathologist's term for thinning and dilatation of an infarcted segment. Basically, it means aneurysm formation, which is thought to be reduced by late reperfusion because the restoration of blood flow permits accelerated scar formation. Since

Table 4. Relationship Between Time to Treatment and Mortality in GISSI and ISIS-2

Time to Treatment	Mortality (%)		P-Value
	Control	Streptokinase	
6-12 hours	12.9	11.5	0.12
12-24 hours	10.8	8.7	0.08

aneurysm formation in humans is strongly associated with congestive heart failure and sudden cardiac death, late reperfusion may substantially improve the functional status and life expectancy of such patients.

A second justification for late treatment comes from the Western Washington trial of intracoronary streptokinase. In this study, patients were eligible for entry as much as 12 hours after symptom onset. Mean time to treatment was 4.6 hours and mean time to recanalization was almost 6 hours. As in the case of other studies of reperfusion at 5 to 6 hours, there was no improvement in left ventricular function. However, patients whose infarct arteries were reperfused by streptokinase had an in-hospital mortality rate of 4 percent, whereas patients with persistent total occlusion of the infarct artery had an in-hospital mortality rate of 11 percent.[7]

Physicians considering late treatment of patients should bear the following in mind. First, the benefit of late treatment is not "proved" in the usual statistical sense. Although a strong argument can be made for application of thrombolytic therapy 6 to 12 hours into the course of myocardial infarction, patients certainly should not be subjected to excessive risk. Thus, patients should have none of the known or suspected risk factors for serious bleeding. These include recent head trauma or surgery, recent TIA, or stroke, active peptic ulcer disease, recent major surgery, and probably a history of severe and uncontrolled hypertension. Second, it should be remembered that aneurysm formation is a fairly common complication of anterior infarcts but a rare complication of inferior infarcts. Thus, treatment probably should be confined to patients with evidence of intermediate to large anterior infarctions and large inferior infarctions.

Adjunctive Therapy

In conjunction with streptokinase, aspirin and heparin have both been shown to reduce the risks of mortality and nonfatal reinfarction.[2,8] Whether there is added benefit when aspirin and heparin are given together is unknown. This question should be answered in the near future by the ongoing GISSI-2 trial.

Heparin has been shown to prevent reocclusion after treatment with tPA.[9] As in the case of streptokinase, whether aspirin offers additional benefit is unknown. The risk of intracranial hemorrhage appears to be around 0.5 percent when tPA and heparin are given together and aspirin is added on the second hospital day. The risk of intracranial hemorrhage increases to 1 percent when heparin, aspirin, and tPA are given simultaneously. Whether this increase in intracranial hemorrhage is offset by a reduction in overall mortality is unknown.

The risks and benefits of heparin and aspirin in patients treated with APSAC remain unknown.

Drug of Choice

It is not known whether the apparent coronary thrombolytic superiority of tPA will lead to further reductions in mortality when compared to streptokinase. What is known about this highly controversial subject is that the coronary patency rates 90 to 120 minutes after treatment with tPA are higher than those 90 to 120 minutes after treatment with streptokinase. Representative figures would be 80 and 60 percent, respectively.[10-15] As arbitrary as choice of a 90 to 120 minute observation time for thrombolytic effectiveness might seem to be, it is highly predictive of subsequent clinical outcome. Patency 90 to 120 minutes after initiation of therapy has been consistently associated with improved left ventricular function and/or reduced hospital mortality. The implication of these observations alone would seem to support selection of tPA in patients with acute myocardial infarction. However, angiography performed 24 to 48 hours after treatment show similar patency rates (around 85 percent) for both agents. Thus, the superiority of tPAs may have more to do with the speed of reperfusion than with ultimate patency rates. What is not known is how much clinical benefit will be derived by reperfusion 2 to 24 hours after treatment. Moreover, optimal regimens for each of these drugs have not been established.

The most impressive results of treatment with streptokinase have been reported from Auckland, New Zealand.[16,17] In a placebo-controlled trial of streptokinase that reported dramatic benefit, and in a comparative study of streptokinase and tPA that found no difference in subsequent left ventricular function, the New Zealand investigators gave 1.5 million units of streptokinase over 30 minutes. This contrasts with the 60-minute infusion recommended by the Food and Drug Administration (because it was found to be effective in the GISSI trial). In both New Zealand trials, patients underwent coronary arteriography and left ventriculography three weeks after hospital admission. Thus, the patency rate associated with this accelerated infusion of streptokinase is unknown.

Similarly, several groups of investigators have experimented with accelerated infusions of tPA. These include reports of an 80 percent patency rate 60 minutes after a 50 mg intravenous bolus and 87 percent patency rates 90 minutes after a 90-minute infusion of 100 mg of tPA.[18,19] Both these infusions are substantially different from the 3-hour, 100 mg dosing regimen recommended by the FDA. It should be understood that FDA approval of a drug indicates a judgment by the FDA that a particular drug regimen is effective and reasonably safe, not a judgment that the FDA knows the best drug regimen. The FDA's recommendation for tPA dosing, for example, was based on trials from Johns Hopkins and Sydney, Australia in which 100 mg of tPA given over 3 hours was found to be associated with significant preservation of left ventricular function.[20,21]

Conclusion

The 1980s were an exciting time for cardiologists, as thrombolytic therapy, for the first time, provided a practical means of reducing infarct size and infarct-related mortality. As with other treatments, clinicians must weigh the apparent risks and benefits of thrombolytic therapy. If the ischemic region is large, if treatment can be applied early enough to salvage ischemic myocardium, and if there is no obvious risk of life-threatening hemorrhage, it is likely that the patient will benefit from thrombolytic therapy.

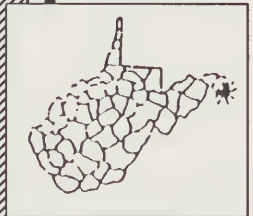
References

1. Gruppo Italiano per lo Studio della Streptochinasi nell' Infarto Miocardico (GISSI). Effectiveness of intravenous thrombolytic treatment in acute myocardial infarction. Lancet 1986;1:397-401.
2. ISIS-2 (Second International Study of Infarct Survival) Collaborative Group. Randomised trial of intravenous streptokinase, oral aspirin, both, or neither among 17,187 cases of suspected acute myocardial infarction: ISIS-2. Lancet 1988;2:349-60.
3. Wilcox RG, von der Lippe G, Olson CG, et al. Trial of tissue plasminogen activator for mortality reduction in acute myocardial infarction. Lancet 1988;2:525-30.
4. Van de Werf F, Arnold AER. Intravenous tissue plasminogen activator and size of infarct, left ventricular function, and survival in acute myocardial infarction. Br Med J 1988;297:1374-79.
5. AIMS Trial Study Group. Effect of intravenous APSAC on mortality after acute myocardial infarction: preliminary report of a placebo-controlled clinical trial. Lancet 1988;1:545-49.
6. Mauri F, Gasparini M, Barbonaglia L et al. Prognostic significance of the extent of myocardial injury in acute myocardial infarction treated by streptokinase (the GISSI trial). Am J Cardiol 1989;63:1291-95.
7. Kennedy JW, Ritchie JL, Davis KB, Stadius ML, Maynard C, Fritz JK. The Western Washington randomized trial of intracoronary streptokinase in acute myocardial infarction: A 12 month follow-up report. N Engl J Med 1985;312:1073-78.
8. The SCATI Group. Randomized clinical trial of subcutaneous calcium heparin in acute myocardial infarction. Lancet 1989;2:182-86.
9. Bleich SD, Nichols T, Schumacher R et al. The role of heparin following coronary thrombolysis with tissue plasminogen activator (abstract). Circulation 1989;80:II-113.
10. Chesebro JH, Knatterud G, Roberts R et al. Thrombolysis in Myocardial Infarction (TIMI) Trial, Phase I: a comparison between intravenous tissue plasminogen activator and intravenous streptokinase: clinical findings through hospital discharge. Circulation 1987;76:142-54.
11. Verstraete M. Thrombolysis after myocardial infarction (letter). Lancet 1988;1:763.
12. Stack RS, O'Conner CM, Mark DB et al. Coronary perfusion during acute myocardial infarction with a combined therapy of coronary angioplasty and high dose intravenous streptokinase. Circulation 1988;77:151-61.
13. Brochier ML, Quillet L, Kulbertus H et al. Intravenous anisoylated plasminogen streptokinase activator complex versus intravenous streptokinase in evolving myocardial infarction. Drugs 1987;33(Suppl 3):140-45.
14. Topol EJ, George BS, Kereiakes DJ et al. Comparison of two dose regimens of intravenous tissue plasminogen activator for acute myocardial infarction. Am J Cardiol 1988;61:723-28.
15. Simoons ML, Betriu A, Arnold AER et al. Thrombolysis with tissue plasminogen activator in acute myocardial infarction: No additional benefit of immediate PTCA. Lancet 1988;1:197-202.
16. White HD, Norris RM, Brown MA et al. Effect of intravenous streptokinase on left ventricular function and early survival after acute myocardial infarction. N Engl J Med 1987;317:850-55.
17. White HD, Rivers JT, Maslowski AH et al. Effect of intravenous streptokinase as compared with that of tissue plasminogen activator on left ventricular function after first myocardial infarction. N Engl J Med 1989;320:817-21.
18. Tebbe U, Tanswell P, Siefried E et al. Single-bolus injection of recombinant tissue-type plasminogen activator in acute myocardial infarction. Am J Cardiol 1989;64:448-53.
19. Neuhaus KL, Feurer W, Tebbe U, Jeep-Tebbe S, Vogt A. Efficacy of a 90 minute infusion of 100 mg tissue plasminogen activator (rt-PA) in acute myocardial infarction (abstract). Eur Heart J 1988;9(Suppl 1):9.
20. Guerci AD, Gerstenblith G, Brinker JA et al. A randomized trial of intravenous tissue plasminogen for acute myocardial infarction with subsequent randomization to elective coronary angioplasty. N Engl J Med 1987;317:1613-18.
21. O'Rourke M, Baron D, Keogh A et al. Limitation of myocardial infarction by early infusion of recombinant tissue-type plasminogen activator. Circulation 1988;77:1311-15.

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Disorders of Carbohydrate Absorption in Clinical Practice

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The most important of the genetically determined causes of carbohydrate malabsorption, lactase deficiency, affects the majority of the world's adults. Management of carbohydrate malabsorption consists of temporary or permanent removal of the offending sugar from the patient's diet or providing the sugar in a more digestible form.

Malabsorption of dietary sugars may cause symptoms of diarrhea, flatulence, bloating, and abdominal pain. Intolerance to sugars results from primary heritable deficiencies of enzymes and transport processes required for their assimilation or secondary to intestinal mucosal injury.

Physiology of Carbohydrate Digestion and Absorption

The average Western diet contains 40 to 60 percent of calories as carbohydrate, of which approximately half is starch. The disaccharides lactose and sucrose are additional important components of dietary sugar content, and lactose is generally the principal carbohydrate ingested in early infancy. Additional sugars in the diet include fructose, found in fruits and soft drinks, and nondigestible sugars including cellulose, stachyose, and raffinose.[1]

All ingested carbohydrates must be hydrolyzed to the monosaccharides glucose, galactose, and fructose prior to absorption and transport across the enterocyte (Figure 1). The luminal action of salivary and pancreatic amylase (as well as breast milk amylase in infants) splits starches, which are polymers of glucose, into shorter chains that then can be further cleaved to free glucose by glycosidase enzymes at the brush border surface of the enterocyte.[2] Several distinct glycosidases are located in the microvillus membrane of the small intestinal absorptive cell, the most clinically relevant being the glucoamylase-maltase complex and the disaccharidases, sucrase-isomaltase or sucrase-alpha-dextrinase and lactase. These enzymes are glycosylated protein complexes anchored to the brush border, with the catalytic sites protruding toward the lumen.

The glucoamylase-maltase complex is responsible for the final hydrolysis of small glucose polymers derived from starches into free glucose and for 20 percent of the maltose digestion; it is an important alternate pathway for starch digestion when pancreatic amylase is absent or reduced. The major portion of the maltose and all branched glucose polymers or alpha-dextrins resulting

from the initial hydrolysis of starches are further hydrolyzed by the action of the dimer sucrase-alpha-dextrinase. The sucrase moiety of this dimer enzyme hydrolyzes sucrose to glucose and fructose. Lactase hydrolyzes lactose into its component monosaccharides, glucose and galactose.[1]

Monosaccharides released by the activity of brush border enzymes are then absorbed and transported across the enterocyte. Glucose and galactose share an energy-dependent transport mechanism linked to sodium, which increases the affinity of the carrier for glucose. Fructose is absorbed by an independent transport mechanism, and its absorption appears to occur by facilitated diffusion.[3]

The capacity for hydrolysis of glucose polymers and sucrose exceeds the capacity for absorption of the component monosaccharides. That is to say, brush border amylase and sucrase activities are present in excess relative to the rate of absorption of their constituent hexoses. In contrast, lactase activity is the rate-limiting step in digestion of lactose,[1] and release of glucose and galactose proceeds at a rate insufficient to give maximal rates of active transport. Accordingly, injury to the small intestinal mucosa typically will result in lactose malabsorption while assimilation of other sugars may remain intact. Greater reserve of sucrase-alpha-dextrinase and glucoamylase activities permits continued hydrolysis of their substrates except in conditions of severe mucosal damage.

Consequences of Malabsorption

Carbohydrate malabsorption may lead to intolerance, defined as some combination of watery diarrhea, bloating, crampy pain, and flatulence occurring after the ingestion of a particular sugar that escapes small bowel absorption. Mechanisms associated with carbohydrate malabsorption are illustrated in Figure 2. Unabsorbed carbohydrates in the small bowel and colon exert significant osmotic pressure, resulting in secretion of fluid and electrolytes into the lumen, and in some cases a watery fecal output.[2] A portion of the sugar entering the colon is fermented by colonic bacteria with production of lactic and other short-chain organic acids. These acids may exacerbate symptoms, since they are osmotically active and stimulate colonic motility. However, the colonic mucosa is capable of absorbing significant amounts of the volatile fatty acids produced by fermentation, thereby reducing the osmotic load and thus the potential fluid loss in the stool. The extent to which these fatty acids are metabolized following their absorption also represents a salvage pathway for calories that otherwise would be lost. The remaining organic acids excreted in the feces account for the acidic stools associated with carbohydrate malabsorption. Fermentation also results in production of the gases hydrogen (H_2), methane, and carbon dioxide, which may lead to abdominal distention and flatulence. These gases readily diffuse into the portal circulation and eventually are exhaled.[4] The presence of H_2 in expired air as an index of carbohydrate malabsorption is discussed below.

A number of variables in addition to the digestive and absorptive capacity of an individual for a given sugar substrate determine whether malabsorption produces symptoms in a given patient. These variables are listed in Table 1 and form the basis by which many individuals with lactose malabsorption attributable to "adult onset" lactase deficiency tolerate nutritionally

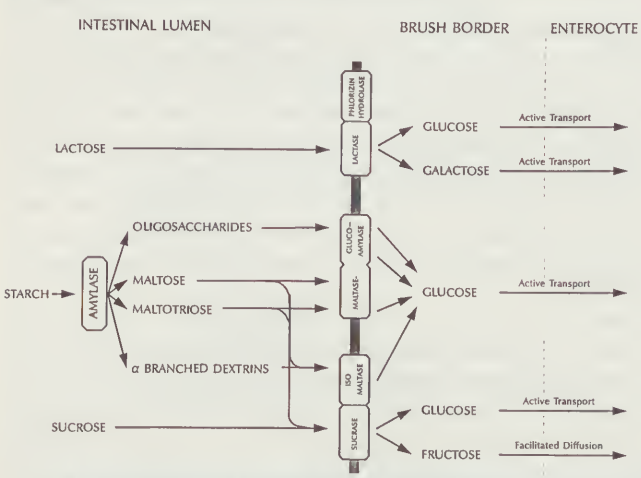


Figure 1. Carbohydrate digestion and absorption

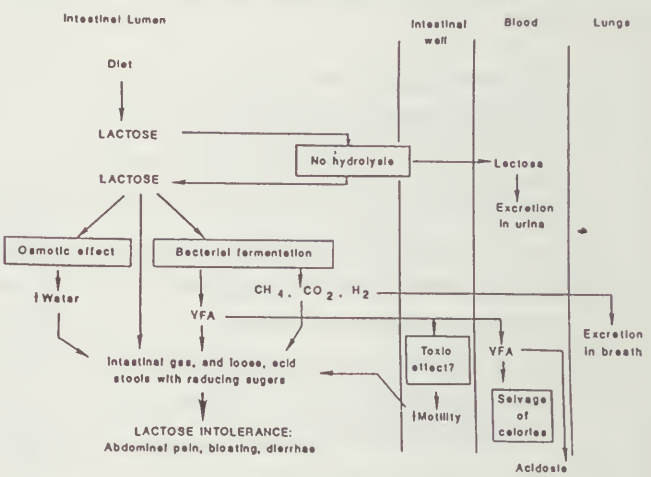


Figure 2. Pathophysiologic events following lactose malabsorption. VFA indicates volatile fatty acids. (from Saavedra JM, Perman JA. Current concepts in lactose malabsorption and intolerance. Annu Rev Nutr 1989;9:475-502, with permission).

Table 1. Factors Influencing Degree of Carbohydrate Intolerance

- Intestinal digestive and absorptive capacity
- Amount of carbohydrate ingested
- Rate of delivery of carbohydrate to small intestine
  - Alterations in gastric emptying
  - Enteral tube feedings - bolus vs. continuous drip
- Response of small intestine to osmotic load
- Metabolic activity of the colonic flora
  - Regulation of colonic wastage and diarrhea
- Absorptive capacity of the colon
  - Water
  - Short-chain organic acids
- Patient subjectivity and psychodynamics

significant amounts of milk without developing marked symptoms.[4]

Disorders of Carbohydrate Malabsorption

Alterations of carbohydrate digestion and absorption may be determined genetically or result secondarily to a variety of conditions. Examples are indicated in Table 2. Ontogenetic forms of sugar malabsorption in infancy are attributable to immaturity of digestive functions. For example, transient lactose malabsorption occurs in premature infants until lactase activity matures, and a degree of starch maldigestion occurs in the first six months of life[3] because of decreased secretion of pancreatic amylase.

Primary lactase nonpersistence, also known as primary lactase deficiency or primary adult-type hypolactasia, is the most important of the genetically determined causes of carbohydrate malabsorption. This deficiency results from a postweaning decline in intestinal lactase activity. The decline begins at varying ages depending on the ethnic group but usually after age five. Lactase deficiency has been associated with both diarrhea and recurrent abdominal pain in childhood.[5,6]

The majority of the world's adult population is lactase deficient, as indicated in Table 3.[2,7] The two adult human lactase phenotypes (either high or low activity) are attributable to different alleles of a regulatory gene at one autosomal locus. The effect of the allele causing persistence of lactase activity is dominant to the allele causing decline of lactase activity; therefore, primary lactase nonpersistence is the recessive phenotype.[1,7]

Congenital forms of disaccharidase and transport deficiencies are much rarer but include glucose-galactose malabsorption and sucrase-isomaltase deficiency. These conditions present with diarrhea following ingestion of the offending sugar. Thus, glucose-galactose malabsorption presents at birth in an infant fed breast milk or a standard lactose-containing formula, and fructose is the only carbohydrate that can be tolerated. Sucrase-isomaltase deficiency may present later in infancy upon the introduction of sucrose-containing formula or fruits. This condition is more common among Greenland and Canadian Eskimos and Canadian Indians, and incidences as high as 10 percent are reported.[1]

Malabsorption of sugar is very common in a number of intestinal diseases that cause intestinal mucosal damage or atrophy, as indicated in Table 2. Injury to the brush border by infectious agents, notably rotavirus and *Giardia lamblia*, commonly cause transient intolerance to lactose.[3] Contamination of the small bowel by bacteria, associated with diabetes and other disorders affecting intestinal motility and in immunodeficiency syndromes, often leads to disaccharidase deficiencies and to impaired monosaccharide transport. Bacterial proteases and glycosidases degrade brush border enzymes, and products of bacterial metabolism including deconjugated bile acids interfere with glucose transport.[1,8] The infant with short bowel also malabsorbs carbohydrate because of insufficient surface area to which carbohydrates may be exposed for enzymatic digestion and transport. Mucosal damage induced by other dietary components, as in immune-mediated cow milk-and soy protein-sensitive enteropathy and in celiac disease, also will frequently lead to sugar malabsorption.[3] Pancreatic insufficiency occurring in cystic fibrosis results in maldigestion of starch due to reduced or absent pancreatic amylase, but its magnitude and clinical significance are under investigation.[9,10] Carbohydrate malabsorption also has been reported in the acquired immunodeficiency syndrome.[5] Our preliminary data indicate that lactase deficiency is common in infants with AIDS.

Table 2. Examples of Conditions Associated with Carbohydrate Malabsorption

Primary
Congenital lactase deficiency
Glucose-galactose malabsorption
Sucrase-isomaltase deficiency
Primary lactase nonpersistence ("adult onset")
Ontogenetic
Lactase deficiency of the premature infant
Deficiency of pancreatic amylase in infancy
Secondary
Cow milk- and soy protein-sensitive enteropathy
Gluten-sensitive enteropathy
Contaminated small bowel syndrome
Giardia lamblia infestation
Rotavirus infection
Short gut syndrome

Table 3. Prevalence of Lactose Malabsorption in Selected Ethnic Groups

Nationality	Percent	Nationality	Percent
Americans		Danes	3
Caucasians	19	British	6
Blacks	65	Germans	15
Indians	95	Spaniards	15
Eskimos	83	Soviets (Leningrad)	15
Mexican-Americans	52	Israelis	66
Mexicans	83	Arabs	80
Canadians		Central Africa (Bantu)	95
Caucasians	6	Indians (overseas)	75
Indians	63	Vietnamese (USA)	100
Swedes	1	Thais	98

Diagnosis of Carbohydrate Malabsorption

Recent data indicate that patients and physicians often have difficulty accurately relating gastrointestinal symptoms to specific dietary sugar intake.[11] The diagnosis of carbohydrate malabsorption should accordingly be established objectively by simple diagnostic tests. Futhermore, restriction of specific carbohydrates in the diet often represents a considerable task on the part of the patient and therefore should be undertaken when justified by testing. Accurate diagnosis in infants is particularly necessary for proper selection of the formula among the wide variety of

choices now available for treatment of carbohydrate and other nutrient malabsorption.

Diagnosis of specific carbohydrate malabsorption previously relied on measurement of disaccharidase activity in mucosal biopsies obtained from proximal small intestine. Aside from being invasive, this technique does not reflect total mucosal hydrolytic capacity but may be useful in the diagnosis of congenital deficiencies.[2] Widely applied traditional oral tolerance tests are dependent on the extent of blood glucose increase following administration of a specific sugar. These provide no information as to whether the sugar has been incompletely absorbed and require frequent blood sampling. Moreover, the results can be affected by alterations in gastric emptying, intestinal motility, and intermediary glucose metabolism.[2] Both false-positive and negative results have been reported in adults and up to 30 percent of children tested.[1,12]

Measurement of parameters directly related to the fate of carbohydrates reaching the colon provides a better indication of incomplete absorption. These are listed in Table 4. Tests for reducing sugars in the stool and fecal pH are useful office or bedside screening methods but require the presence of the suspected carbohydrate in the patient's diet.

Table 4. Methods for Detecting Carbohydrate Malabsorption

Test	Technique	Result
Sugar in feces	1. Place small amount of liquid stool in test tube 2. Dilute with twice its volume of water 3. Place 15 drops of the resulting suspension in a second test tube together with a Clinitest® tablet 4. Compare the resulting color with the chart provided for testing of urine Note: Sucrose is not a reducing sugar. Test for sucrose malabsorption requires 1N HCl instead of water, followed by brief boiling.	Negative $\leq$ 0.25% Equivocal 0.25%-0.5% Positive $\geq$ 0.5%
Fecal pH	1. Dip Nitrazine® paper into liquid part of stool 2. Compare resulting color of paper with chart provided	Positive $\leq$ 5.5
Breath hydrogen	1. Patient is fasted (overnight if possible) 2. Obtain fasting sample of expired air 3. Administer oral load of test sugar, usually 2 g/kg; maximum 50 g as 20% solution. Doses and concentration should be reduced when severe intolerance is suspected	Negative < 10 ppm above baseline Equivocal 10-20 ppm Positive > 20 ppm

Source: modified from Perman JA. Sugar malabsorption in an Infant. Pediatric Case Reports in Gastrointestinal Diseases. 1985;V(4).

Breath Hydrogen Test

The breath hydrogen test, which is based on production of H_2 by colonic bacteria during fermentation of malabsorbed sugar, is the most reliable means of identifying carbohydrate malabsorption. This test is used extensively in adult and pediatric gastroenterologic practice at The Johns Hopkins Medical Institutions. Recent innovations have permitted its use in the practitioner's office and in the home.

Hydrogen in expired air occurs as a result of absorption of a portion of the H_2 produced in the intestinal lumen when sugar is malabsorbed. Breath H_2 analysis offers several advantages for the detection of carbohydrate malabsorption in adults and children. Breath is sampled noninvasively, permitting frequent repetition of measurements. No separation steps are required prior to analysis of the sample, thus allowing rapid measurement. In addition, breath samples can be stored in simple collection systems and analyzed at central facilities at a later time.

The test generally is performed after an overnight fast, by obtaining samples of expired air before and at thirty minute intervals for three hours following administration of aqueous sugar solutions. A longer testing period is needed if the test substrate is administered in a complex meal such as yogurt. Substrate selection, form, and dosage are flexible. The conventional dose of lactose for investigation of lactose malabsorption is 2 g/kg (maximum 50 g) given as a 20 percent solution (10 percent in infants under 6 months or if severe intolerance is suspected). Testing also can be done using formula, milk, or yogurt as the source of the test carbohydrate. The breath can be collected by a simple nasal prong into which the patient breathes normally and does not require active cooperation by the subject (Figure 3). The examiner aspirates small volumes of air into a plastic syringe with each expiration, until a sufficient volume for analysis is collected.

Samples stored in the plastic collection syringes are stable for at least eight hours, longer if sealed or refrigerated. Alternatively, the samples can be easily transferred to special nonsterile vacutainers in which stability has been documented for periods exceeding thirty days.

The ease of sampling and feasibility of sample storage has led to our recent development of a breath collection kit that can be packaged and mailed, permitting home or office testing of lactose and other sugar intolerance. The kit includes test carbohydrate, the nasal prong, collection syringes, special vacutainers for storage, and mailing materials, along with simple instructions for their use (Figure 4). The stored breath samples are then sent to the central laboratory for analysis. Carbon dioxide concentration in the sample is used as an internal standard for quality control and to normalize H_2 values in individual samples.[13] In this way breath H_2 testing can now be widely available as a practical diagnostic tool.

Analysis of H_2 in breath samples is accomplished by

gas chromatography. Instruments for this purpose are commercially available and may be practical for centers performing frequent tests.

A positive test is indicated by a rise in H_2 concentration of 20 or more parts per million (ppm) above the baseline, defined as the lowest value obtained at any sampling time. A breath H_2 rise in the first 120 minutes following ingestion of substrate can completely discriminate biopsy-proved isolated lactase-insufficient subjects from lactase-sufficient subjects.[5] High fasting H_2 concentrations or an early H_2 rise in the first 30 minutes after substrate ingestion may indicate small bowel bacterial overgrowth. Fasting H_2 concentration is particularly useful for this purpose if the pretest dinner meal is standardized to red meat and rice as the only source of carbohydrate.[14] False-negative tests attributable to inability of colonic bacterial flora to produce H_2 from unabsorbed carbohydrates occur infrequently,[1] and sometimes may be associated with prior antibiotic usage. Applications of breath H_2 testing are summarized in Table 5.



Figure 3. Nasal prong device for collection of end tidal samples of expired air (from Perman JA, Barr RB, Watkins JB. Sucrose malabsorption in children; non-invasive diagnosis by interval breath hydrogen determination. J Pediatr 1978;93:17-22, with permission).



Figure 4. Breath Hydrogen Test Kit (courtesy of Dome Corp.)

Management of Carbohydrate Malabsorption

Treatment of sugar malabsorption requires reduction or removal of the offending sugar from the patient's diet. In infancy, lactose and other disaccharide malabsorption is usually secondary and therefore transient, and numerous proprietary formulas permit specific choices to modify the infant's carbohydrate intake (Table 6).[3] Congenital sucrase-isomaltase deficiency is managed with

Table 5. Specific Applications of Breath Hydrogen Tests

Detection of	Substrate
Starch malabsorption	Rice starch
Disaccharidase deficiency	
Lactase	Lactose
Sucrase	Sucrose
Monosaccharide malabsorption	
Glucose	Glucose
Fructose	Fructose
Small bowel bacterial overgrowth	Glucose or lactose
Mouth-to-cecum transit time	Lactulose

Table 6. Carbohydrate Content of Selected Formulas

Lactose	
Human milk	100% lactose
Similac®	100% lactose
Enfamil®	100% lactose
SMA®	100% lactose
Lactose/glucose polymers (corn syrup solids)	
Similac Special Care®	50% lactose, 50% glucose polymers
Enfamil Premature®	40% lactose, 60% glucose polymers
SMA Preemie®	50% lactose, 50% glucose polymers
Sucrose/glucose polymers (corn syrup solids)/starch	
Nursoy®	100% sucrose
Isomil®	50% sucrose, 50% glucose polymers
Portagen®	25% sucrose, 73% glucose polymers, 2% other CHO
Alimentum®	67% sucrose, 33% tapioca starch
Glucose polymers/starch	
Prosobee®	100% glucose polymers
Isomil SF®	100% glucose polymers
Nutramigen®	84% glucose polymers, 16% modified starch
Pregestimil®	60% glucose polymers, 20% modified starch, 20% glucose
Carbohydrate - free (must be added)	
RCF®	none
MJ3232A®	2.8% tapioca starch
Provimin®	2 g citrate per 100g powder

lactose-containing formulas and avoidance of sucrose-containing foods. Glucose-galactose malabsorption is treated by eliminating all dietary carbohydrate except fructose, and carbohydrate-free formulas to which fructose is added can be used in these patients. Ontogenetic lactose malabsorption in premature infants currently is managed by using glucose polymers as the source of at least 50 percent of the carbohydrate in proprietary formulas designed for these babies.

In older children and adults with primary lactase deficiency, avoidance of foods rich in lactose including fresh or powdered milk and milk pudding is often sufficient, since many patients will tolerate foods with smaller amounts of lactose such as cheese.[1] Total elimination of lactose or dairy products is rarely necessary, and may compromise the patient's nutritional status, particularly in children. Alternatives for patients who want to consume milk or in whom adequate calcium intake cannot be achieved by other means include prehydrolyzed milk treated with microbial-derived lactase enzyme or ingestion of this enzyme with milk products at mealtime. Yogurt containing active live culture from which microbial lactase is released is often well tolerated by lactase-deficient individuals.[4] The calcium in this product is normally absorbed by lactose malabsorbers.[1] Frozen yogurts appear not to confer the beneficial effect of standard yogurt.

Summary

Carbohydrate malabsorption is a common clinical problem seen in a variety of settings. In infancy, it is the nutrient most likely to influence tolerance to a particular formula in a number of conditions that cause secondary sugar malabsorption. Genetically determined "adult onset" lactose malabsorption is very prevalent and may present with nonspecific gastrointestinal complaints. In all cases, a precise diagnosis can be established by appropriate tests. The breath hydrogen test is the most accurate and least invasive of these and is now available for home or office use. Management of carbohydrate malabsorption consists of temporary or permanent removal of the offending sugar from the patient's diet, or as in the case of lactose intolerance, providing the sugar in a more digestible form to help relieve the patient's symptoms.

References

1. Semenza G, Auricchio S. Small-intestinal disaccharidases. In Scriver CR, Stanbury JB, Wyngaarden JB, Fredrickson DS, eds. The Metabolic Basis of Inherited Disease, 6th edition. New York: McGraw-Hill, 1989:2975-97.

2. Perman JA. Sugar malabsorption in an infant. Pediatric Case Reports in Gastrointestinal Diseases. 1985;V(4).

3. Perman JA. Carbohydrate malabsorption. In Lifshitz F, ed. Nutrition for Special Needs In Infancy: Protein Hydrolysates. New York: Marcel Dekker, Inc., 1985:145-57.

4. Saavedra JM, Perman JA. Current concepts in lactose malabsorption and intolerance. Annu Rev Nutr 1989;9:475-502.

5. Barr RG, Watkins JB, Perman JA. Mucosal function and breath hydrogen excretion: Comparative studies in the clinical evaluation of children with nonspecific abdominal complaints. Pediatrics 1981;68:526-33.

6. Barr RG, Levine MD, Watkins JB. Recurrent abdominal pain of childhood due to lactose intolerance: A prospective study. N Engl J Med 1979;300:1449.

7. Flatz G. The genetic polymorphism of intestinal lactase activity in adult humans. In Schriver CR, Stanbury JB, Wyngaarden JB, Fredrickson DS, eds. The Metabolic Basis of Inherited Disease, 6th edition. New York: McGraw-Hill, 1989: 2999-3006.

8. Perman, JA. Carbohydrate intolerance and the enteric microflora. In Lifshitz F, ed. Carbohydrate Intolerance in Infancy. New York: Marcel Dekker, Inc., 1982:137-52.

9. Perman JA, Rosenstein, BJ. Carbohydrate digestion in cystic fibrosis (CF): Application of breath H_2 measurements. Pediatr Res 1986;20:246A.

10. Kerlin P, Wong L, Harris B, Capra S. Rice flour, breath hydrogen and malabsorption. Gastroenterology 1984;87:578-85.

11. DiPalma JA, Narvaez RM. Prediction of lactose malabsorption in referral patients. Dig Dis Sci 1988;33:303-307.

12. Newcomer AD, McGill DB, Thomas PJ, Hofmann AF. Prospective comparison of indirect methods of detecting lactase deficiency. N Engl J Med 1975;293:1232-36.

13. Perman JA, Modler S, Engel RR, Heldt G. Effect of ventilation on breath hydrogen measurements. J Lab Clin Med 1985;105:436-39.

14. Perman JA, Modler S, Barr RG, Rosenthal P. Fasting breath hydrogen concentration: Normal values and clinical application. Gastroenterology 1984;87:1358-63.

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Preservation of Sexual Function in Men During Radical Pelvic Surgery

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Recent neuroanatomical findings making it possible to intraoperatively identify the branches of the pelvic plexus that innervate the corpora cavernosa have been used to modify standard radical prostatectomy and cystoprostatectomy to prevent postoperative sexual dysfunction.

In the past, sexual dysfunction was a common complication following radical pelvic surgery of all types: radical prostatectomy, radical cystoprostatectomy, and abdominoperineal resection. Despite the common occurrence of this complication, only recently was it clear why impotence occurred or how it could be prevented. In 1982 a study from The Johns Hopkins Medical Institutions demonstrated that impotence following radical prostatectomy occurred secondary to injury to the branches of the pelvic plexus that innervate the corpora cavernosa.[1] As a result, minor modifications in the surgical procedure were proposed, based on sound anatomical and pathological principles,[2,3] in order to avoid this complication. Over the past eight years these modifications have been employed extensively during radical prostatectomy[4-9] and cystoprostatectomy.[10-11] We outline the anatomical considerations necessary for preservation of sexual function, the surgical technique and results with radical prostatectomy and cystoprostatectomy, and the possible application of this knowledge to rectal resection.

Anatomical Considerations

Penile erection is mediated by a coordinated vascular and neurological event that results in increased inflow of blood to the corpora cavernosa, dilation of venous sinosoids within the penis, and decreased venous outflow from the corpora cavernosa. Neurological input is primarily from the parasympathetic component of the autonomic nervous system. Emission and ejaculation are mediated predominantly by sympathetic nerves that travel from the thoracolumbar region of the spinal cord along the sympathetic ganglia and down the hypogastric nerves to the pelvic plexus.

Detailed understanding of the exact location of the pelvic plexus and the important branches providing innervation to the corpora cavernosa has only recently been possible.[1-3,11,12] The pelvic plexus is formed by parasympathetic visceral efferent

preganglionic fibers (the pelvic nerve or nervi erigentes) that arise from the sacral center (S2 to S4) and sympathetic fibers arising from the thoracolumbar region via the hypogastric nerve (Figure). The pelvic plexus is located retroperitoneally on the lateral wall of the rectum 5 to 11 cm from the anal verge with its midpoint related to the tip of the seminal vesicle, forming a fenestrated rectangular plate situated in the sagittal plane. Branches from the pelvic plexus provide innervation to the rectum, bladder, prostate, seminal vesicles, urethra, and corpora cavernosa. The cavernous branches travel in a direct route from the pelvic plexus toward the posterolateral base of the prostate, gradually coalescing from a group of fibers approximately 12 mm wide to a more organized bundle approximately 6 mm wide at the level of the prostate. At this point the cavernous nerves travel in association with the capsular arteries and veins of the prostate in the lateral pelvic fascia outside the prostatic capsule and Denonvilliers' fascia. They ascend from the level of the apex of the prostate posterolaterally to the urethra where they penetrate the urogenital diaphragm. Note that the bulk of the pelvic plexus is located lateral and posterior to the seminal vesicles. Thus, the seminal vesicles can be used as a landmark intraoperatively to identify the pelvic plexus, which is imbedded in thick fascia and perforated by branches of the inferior vesical artery and vein suppling the rectum, bladder, and prostate. The cavernous nerves also can be identified intraoperatively, as they travel posterolaterally to the prostate on the anterolateral surface of the rectum by their rather constant association with the capsular arteries and veins of the prostate. This association of the cavernous nerves with the capsular vessels of the prostate (the neurovascular bundle) provides the macroscopic landmark that aids in the identification of these microscopic nerves.[2,4,12]

Operative Technique for Radical Retropubic Prostatectomy and Cystoprostatectomy

Based upon these findings, it is possible to identify the location of the pelvic plexus and cavernous nerves intraoperatively and to make an informed decision whether it is safe to preserve these anatomical structures or necessary to excise them widely with the specimen. In all surgical procedures for cancer, the major goal is excision of all the tumor; preservation of sexual function is of secondary consideration. Previously, impotence following radical prostatectomy occurred secondary to injury to the branches of the corpora cavernosa at one of three steps during standard radical prostatectomy:

1. Apical dissection with transsection of the urethra

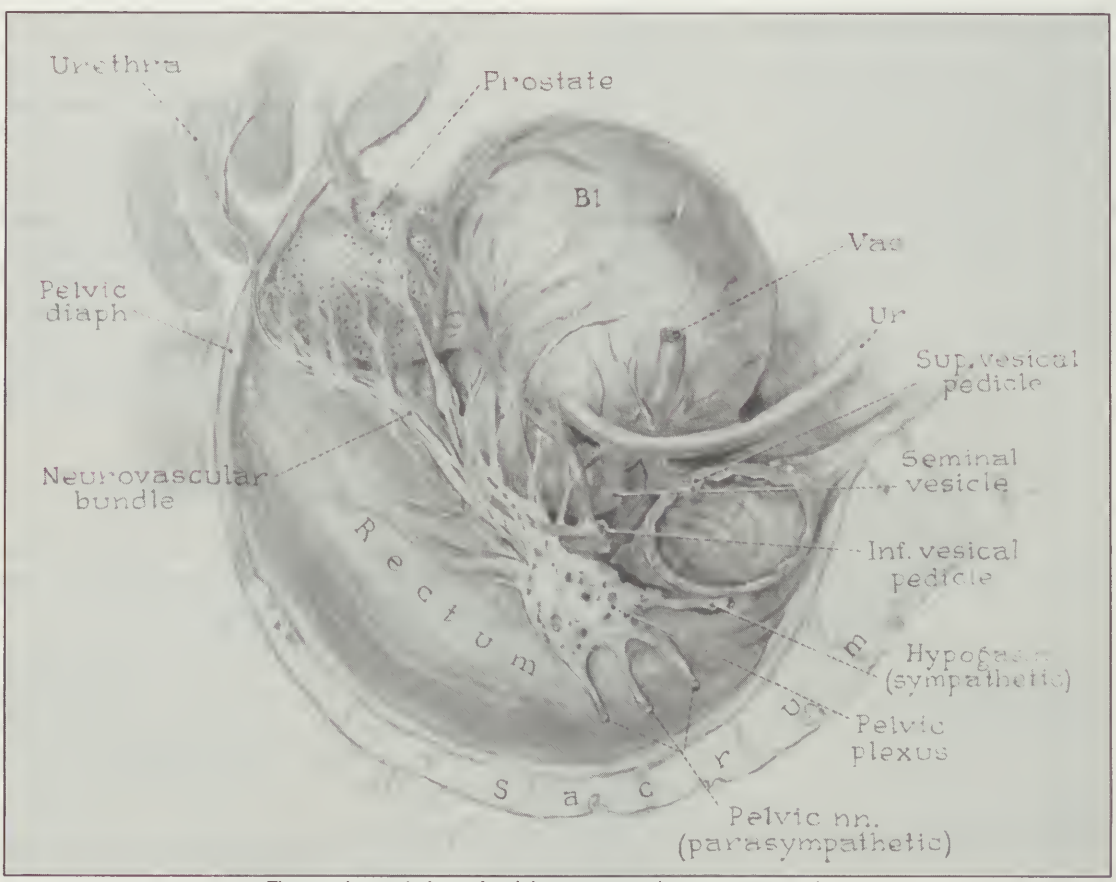


Figure. Lateral view of pelvic organs and neuroanatomy in man as reconstructed based on cadaveric dissections. (Reprinted with permission from J Urol 1987;138:1402-1406)

2. Separation of the prostate from the rectum
3. Division of the lateral pedicle[1,2]

There is no evidence that the neurovascular bundles were completely resected during standard radical prostatectomies.[2,7,8] Instead, they were inadvertently or unknowingly injured during the steps that were performed without precise identification and resection of the neurovascular bundles.

In 1979 the anatomy of the dorsal vein complex and Santorini's plexus was clarified, and modifications in the surgical procedure were proposed to reduce blood loss and improve surgical exposure.[13] These changes made it possible to visualize the neurovascular bundles intraoperatively. Previously many surgeons dreaded this operation because of the profound blood loss encountered when the dorsal vein complex was transected at the apex of the prostate. However, once the exact anatomy of the dorsal vein was understood, it became possible to ligate and accurately control bleeding from this complex. After a bloodless field is achieved, the urethra is transected and the prostate is separated from the rectum in the midline. At this point the neurovascular bundles are identified, a step that had not been performed before. Here the surgeon determines the proximity of the neurovascular bundles to the tumor and decides whether they must be excised or can be safely preserved without compromising the cancer operation. If the decision is made to excise the neurovascular bundle on the side of the tumor, the neurovascular bundle on the contralateral side usually can be preserved. With excision of the neurovascular bundle it is now possible to obtain wider soft tissue margins than were formerly attained with standard radical prostatectomy.[6-9] The specific operative steps in this surgical procedure have been detailed elsewhere.[2,3,14]

In patients undergoing radical cystoprostatectomy, the usual bilateral pelvic lymph node dissection is performed, the ureters divided, the obliterated umbilical and superior vesical arteries transected, and the plane between the bladder and rectum developed by incising the peritoneum at the apex of the rectovesical cul-de-sac. Once this is accomplished, the surgeon may remove the specimen in a retrograde fashion using the steps described above for radical retropubic prostatectomy.[4,10,11] Alternately, the dissection can continue from above with ligation of the posterior pedicles along the lateral surface of the seminal vesicle, thus avoiding injury to the pelvic plexus.[11]

Results Following Radical Prostatectomy

Preservation of Sexual Function We recently published a follow-up evaluation on 320 men, followed postoperatively from 1 to 5 years.[9] Of these 320 men, 259 were potent preoperatively and had sexual partners. Postoperatively, 74 percent (192) are potent. Potency, defined as the ability to achieve an erection sufficient for vaginal penetration and orgasm, returns gradually over the first two years following surgery.[8] Potency was correlated with both the age of the patient and the stage of the disease: it returned in 100 percent of men age 30 to 39; 79 percent of men 40 to 49; 85 percent of men 50 to 59; 64 percent of men 60 to 69; and 14 percent of men 70 to 75. Also, potency returned in 93 percent of patients with stage A1 disease, 72 percent of stage A2, 92 percent of stage B1 N, 72 percent of stage B1, and 56 percent of stage B2 patients.

The tumor was confined within the capsule in virtually all men with stage A1 disease, so it is reasonable to assume that both neurovascular bundles can be preserved completely in most men with this stage of disease. This factor is responsible for the excellent return of sexual function among patients with stage A1 disease. On the other hand, the reduced rate of potency in men with stage B2 disease indicates that attempts at resection of more advanced tumors result in greater injury to the cavernous nerves. In cases where it was necessary to excise one neurovascular bundle, 69 percent of men are potent postoperatively.[6] Thus, one can conclude that potency can be maintained following radical prostatectomy even when it is necessary to excise one neurovascular bundle widely.

Cancer Control For over 80 years radical prostatectomies were performed without knowledge of why impotence occurred or how it could be prevented. Thus, it is not surprising this innovation in surgical technique might raise the question of whether cancer control has been compromised. At the outset it should be clear that this is a total radical prostatectomy, not a lumpectomy. If the operation is performed correctly it should be as effective (if not more effective) in removing tumors than prior attempts using a less anatomic approach that relied on blind, blunt dissection. As outlined earlier, the cavernous nerves are located outside the capsule of the prostate and Denonvilliers' fascia.[1,2,12] This is the first principle on which this procedure was devised. Consequently, if all of the tumor was located intracapsularly, it should be possible to preserve sexual function in every patient without injury to these nerves. However, despite current attempts at staging prostatic cancer, the tumor often penetrates the prostatic capsule and into adjacent soft tissue. During standard radical perineal prostatectomies, in the past, the lateral pelvic fascia was reflected off the prostate in an effort to avoid injury to the dorsal vein of the penis and to Santorini's plexus.[2,7-9] Thus, the excellent long-term control of disease reported following radical perineal prostatectomy has been achieved without routine resection of the lateral pelvic fascia and neurovascular bundles. Also, the descriptions of radical retropubic prostatectomy available in standard textbooks provide no evidence that the neurovascular bundles were completely resected during the retropubic approach. These observations have been confirmed by examining specimens removed by the standard radical perineal and retropubic approaches.[2,7] One of the advantages of the anatomical

approach to radical prostatectomy is the accurate control of blood loss, which provides a clear surgical field. When this technique is used, all structures are visualized clearly and a decision can be made, based on the operative findings, as to whether the structures can be preserved or must be resected with the specimen. In this manner, a wider margin of resection can be achieved than was possible using blunt dissection.[6]

Ever since this new surgical approach was developed, the pathologists at The Johns Hopkins Hospital have carefully examined all step-sectioned radical prostatectomy specimens. Early in our experience, pathologists compared prostatic specimens removed by the standard radical perineal technique, the standard radical retropubic technique, and the nerve-sparing operation to determine the amount of periprostatic tissue and skeletal muscle that was removed.[2] These findings confirmed the anatomical observations mentioned above and suggested that less periprostatic tissue and skeletal muscle was removed with the radical perineal approach than with either of the retropubic approaches, but that none of the techniques appeared to compromise the adequacy of the removal of limited cancer of the prostate.

We subsequently evaluated pathologic specimens from the first 100 consecutive patients who underwent nerve-sparing radical retropubic prostatectomy.[5] Although 41 percent of the patients had established capsular penetration, only seven had positive surgical margins. All of these seven patients had extensive extraprostatic involvement by tumor and five had involvement of the seminal vesicles, poor prognostic findings. In none of these cases were the surgical margins positive only at the site of the nerve-sparing modification. On the basis of these findings, there was no indication that the nerve-sparing modification compromised the adequacy of the removal of cancer, which was determined primarily by the extent of the tumor rather than by the operative technique.

We recently reviewed the pathologic findings in 414 consecutive radical prostatectomies performed for clinical stage A and B carcinoma.[9] Ten percent of the patients had positive surgical margins. The frequency of positive surgical margins was always the same or less than the percentage of patients with positive seminal vesicles and very similar to the percentage of patients with positive lymph nodes. These data appear to confirm our initial impression that patients with positive surgical margins have extensive disease and are in a very high-risk group for the subsequent development of distant metastases. It is likely that no surgical procedure will eliminate all tumor in this small, unfavorable subset of patients. Two recent studies from other institutions confirm these findings.[15,16]

The true efficacy of this procedure will be established only when long-term follow-up evaluations have been performed to determine whether the control of local disease and distant metastases is similar to that achieved with standard radical prostatectomy. Because adjunctive therapy does not influence long-term tumor-free survival, we have avoided the use of adjuvant radiotherapy or hormonal therapy, and we shall be able to evaluate the true impact of radical prostatectomy on the control of prostatic cancer alone.

Because the clinical course of prostatic cancer patients can be protracted and because fifteen-year tumor free survival must be demonstrated before one can categorically conclude that a patient is cured, it will take many years to make a final judgment. However, an earlier more sensitive predictor of cancer control is the rate of local recurrence. Schellhamer[17] has reported a 10 percent rate of local recurrence in the first five years in patients with clinical stage A and B disease and with longer follow-up of fifteen years the total failure rate only increased to 15 percent; 75 percent of the local failures were seen in the first five years with the other 25 percent presenting in the second five years. We recently evaluated the actuarial five-year local failure rate in the 320 patients in this series who have been followed from one to six years. The actuarial[18] overall local recurrence rate (with or without distant metastases) at five years is 10 percent.[19] Of the 10 patients who developed local recurrence, one had a tumor pathologically confined to the prostate, seven had established penetration through the prostatic capsule into soft tissue with or without positive surgical margins, one had microscopic involvement of the seminal vesicles, and one had positive lymph nodes. Four of these ten patients also had distant metastases. In five of the ten cases, the neurovascular bundle was partially or completely excised on the side of the lesion in an attempt to obtain a wider surgical margin. Based on our experience prior to the development of the nerve-sparing technique, approximately 10 percent of patients treated at this institution develop local recurrence as the first sign of failure postoperatively in the first five years. Consequently, the results using this new technique so far are consistent with our past experience and the cases reported in the literature. However, longer follow-up of this group of patients will be necessary to confirm these findings.

Results of Radical Cystoprostatectomy for Bladder Cancer

Over the past five years, 25 men who were potent preoperatively have undergone radical cystoprostatectomy for the treatment of invasive transitional cell carcinoma of the bladder.[11] Pathologic evaluation of all specimens demonstrated negative surgical margins and no patient has developed local recurrence of tumor. Of the patients who had cystectomy alone, 83 percent are potent. Among patients who also underwent urethrectomy, all are able to have erections postoperatively, and 40 percent have erections that are sufficient for intercourse. The potent patients in this group had the urethrectomy performed 4 to 15 months after the cystectomy.

Discussion

There is an aphorism "You only see what you look for, and you only look for what you know." This saying applies to the pelvic plexus and cavernous nerves that in the past were concealed by the dense pelvic fascia and intertwining branches of the inferior vesical vessels. With the identification of macroscopic landmarks it is now possible to identify these structures intraoperatively and to make an informed decision whether these structures need to be sacrificed or whether they can be safely preserved during the dissection. Based on our present experience with men undergoing radical retropubic prostatectomy and radical cystoprostatectomy this knowledge has enabled sexual function to be preserved in a majority of patients and at the same time enabled the surgeon to provide wider margins of excision where necessary. With wider application of these principles to colorectal surgery, similar favorable impact on the quality of life and improved surgical exposure may be possible.

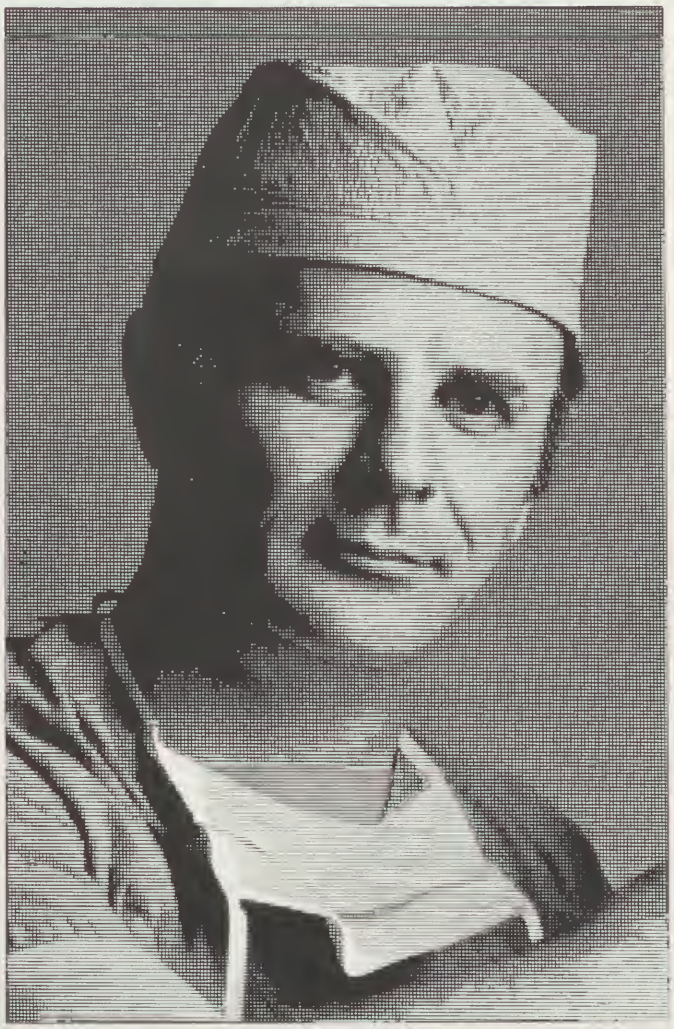
References

1. Walsh, PC, Donker, PJ. Impotence following radical prostatectomy: Insight into etiology and prevention. J Urol 1982;128:492-97.
2. Walsh PC, Lepor H, Eggleston J.C. Radical prostatectomy with preservation of sexual function: Anatomical and pathological considerations. Prostate 1983;4:473-85.
3. Lue TF, Seeineh SJ, Schmidt RA et al. Neuro-anatomy of penile erection: its relevance to iatrogenic impotence. J Urol 1984;131:273-80.
4. Walsh PC. Radical retropubic prostatectomy. In Walsh PC, Gittes RF, Perlmutter AD, Stamey TA, eds. Campbell's Textbook of Urology, 5th ed. Philadelphia: WB Saunders, 1986:2754-75.
5. Eggleston JC, Walsh PC. Radical prostatectomy with preservation of sexual function: Pathological findings in the first 100 cases. J Urol 1985;134:1146-48.
6. Walsh PC, Epstein JI, Lowe FC. Potency following radical prostatectomywith wide unilateral excision of the neurovascular bundle. J Urol 1987;138:823-27.
7. Walsh PC, Epstein JI. Radical prostatectomy with preservation of sexual function: Impact on cancer control. In Paulson ed. Problems in Urology. Philadelphia: JB Lippincott Co, 1987:42-52.
8. Walsh, PC. Radical prostatectomy, preservation of sexual function,cancer control: The controversy. Urol Clin N Am 1987:663-73.
9. Walsh PC. Preservation of sexual function in the surgical treatment of prostatic cancer-An anatomic surgical approach. In DeVita, Hellman, Rosenberg eds. Important Advances in Oncology. Philadelphia, JB Lippincott Co., 1988:161-70.
10. Walsh PC, Mostwin JL. Radical prostatectomy and cystoprostatectomy with preservation of potency. Results utilizing a new nerve-paring technique. Br J Urol 1984;56:694-97.
11. Schlegel PN. Walsh PC. Neuroanatomical approach to radical cystectomy with preservation of sexual function. J Urol 1987;138:1402-1406.
12. Lepor H, Gregerman M, Crosby R et al. Precise localization of the autonomic nerves from the pelvic plexus to the corpora cavernosa: A detailed anatomical study of the adult male pelvis. J Urol 1985;133:207-12.
13. Reiner WG, Walsh PC. An anatomical approach to the surgical management of the dorsal vein and Santorini's plexus during radical retropubic surgery. J Urol 1979;121:198-200.
14. Walsh, PC. Technique of radical retropubic prostatectomy with preservation of sexual function-An anatomic approach. In Skinner D, Lieskovsky eds. Diagnosis and Management of Genitourinary Cancer. Philadelphia: WB Saunders, 1988:753-78.
15. Catalona WJ, Dresner SM. Nerve-sparing radical prostatectomy: extraprostatic tumor extension and preservation of erectile function. J Urol 1985;134:1149-51.
16. Wahle SM, Fallon B, Reznicek MJ, Platz CE. Incidence of surgical involvement with various forms of radical prostatectomies. J Urol 1988;139:479A.
17. Schellhammer PF. Radical prostatectomy, Patterns of local failure and survival in 67 patients. Urology 1988;31:191-97.
18. Kaplan EL, Meier P. Non parametric estimation from incomplete observations. J Am Stat Assn 1958;53:457-81.
19. Walsh PC, Schlegel PN. Radical pelvic surgery with preservation of sexual function. Ann Surg 1988;106:145-53. ■

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Advances in Diagnosis and Treatment of Glaucoma

Harry A. Quigley MD

From the Glaucoma Service, Wilmer Institute, The Johns Hopkins University School of Medicine, Baltimore. Reprints: Maumenee B-110, Wilmer Institute, Johns Hopkins University School of Medicine, Baltimore, MD 21205.

More changes have occurred in the last 10 years in the diagnosis and treatment of glaucoma than occurred in the previous 100 years. Emphasis in diagnosis and follow-up has shifted from measurement of the intraocular pressure to detection and assessment of damage to the optic nerve, objectively and subjectively.

In the last 10 years new medical therapies for open-angle glaucoma have emerged (particularly topical beta blockers) that have made practical the treatment of earlier stages of disease. Clinical trials challenge the traditional hierarchy of therapeutic sequencing that ranked drops and pills first, laser surgery second, and operative surgery third. In the treatment of angle-closure glaucoma, the major change has been the development of laser surgery to produce iridectomies, replacing operative procedures.

Diagnosis of Open-Angle Glaucoma

Glaucoma traditionally has been thought of as having two features: intraocular pressure above the statistically normal range and a characteristic physical change in the optic disc due to loss of nerve fiber substance and deepening. In parallel with the latter, there is a loss of mid-peripheral vision that ultimately spreads to involved loss of all vision.

In the last 20 years, data from clinical studies have fundamentally changed our understanding of glaucoma. Most importantly, if one follows a large cohort of persons with statistically elevated intraocular pressure but no optic nerve damage, the vast majority of such "ocular hypertensives" survive 5 to 10 years without evidence of visual field loss.[1] To be precise, only 1 percent per year appear to be undergoing damage. It is clear that many eyes tolerate modest elevation of intraocular pressure without injury.

Second, a minority of persons with optic nerve damage of the glaucoma type have intraocular pressures in the statistically normal range. Because of this group, it is now understood that the risk of losing vision from glaucoma is a nonlinear function of eye pressure, and the damage probability increases almost exponentially with increasing intraocular pressure.[2]

These observations have important implications for the identification of glaucoma patients. If one screens the population for glaucoma by performing intraocular pressure measurements alone, a substantial number of true glaucoma patients are passed as normal (since their pressures are normal), while a large number

of ocular hypertensive persons are found, many of whom have no substantial short-term risk of developing optic nerve damage. While they certainly merit follow-up as glaucoma suspects, they represent more than ten times as many persons as those with elevated eye pressure and existing damage in a visual field test (that is, the true glaucomas).

Thus, screening by measurement of eye pressure alone is a poor means to find glaucoma. It misses from one-third to one-half of true glaucoma patients on a single random measurement, and it identifies ten times as many suspects as truly damaged persons. Pressure screening is not worthless: it simply has an unacceptably low sensitivity and specificity.

Observation of the Optic Disc

The most rewarding means to identify persons with glaucoma by screening may be the examination of the optic disc. The appearance of the disc in glaucoma has been known from many years. It combines two features of the disease: loss of optic nerve fibers and physical excavation of the disc. The normal disc has a pink rim of tissue and a central pale area of leftover space called the cup. The cup is the space not needed for fibers to fill the opening in the eyewall for optic nerve fibers to leave the eye. In glaucoma, nerve fibers are lost, leading to thinning of the pink rim and enlargement of the cup. Furthermore, the cup undergoes a deepening and an undermining that is characteristic for a backward compression of the disc tissues in glaucoma (Figure 1). While this appearance is occasionally mimicked by normal optic discs, it represents a fundamentally sound method for identification of the glaucoma patient. It is especially important to recognize substantial asymmetry between the two discs in the same person. This results from the typical unilateral onset of nerve damage in glaucoma, with one eye's cup enlarging in its disc before its fellow does.

The last five years have seen the application of image analysis techniques (developed for military satellite observations) to the quantification of the surface topography of the optic nerve head in glaucoma (Fig-

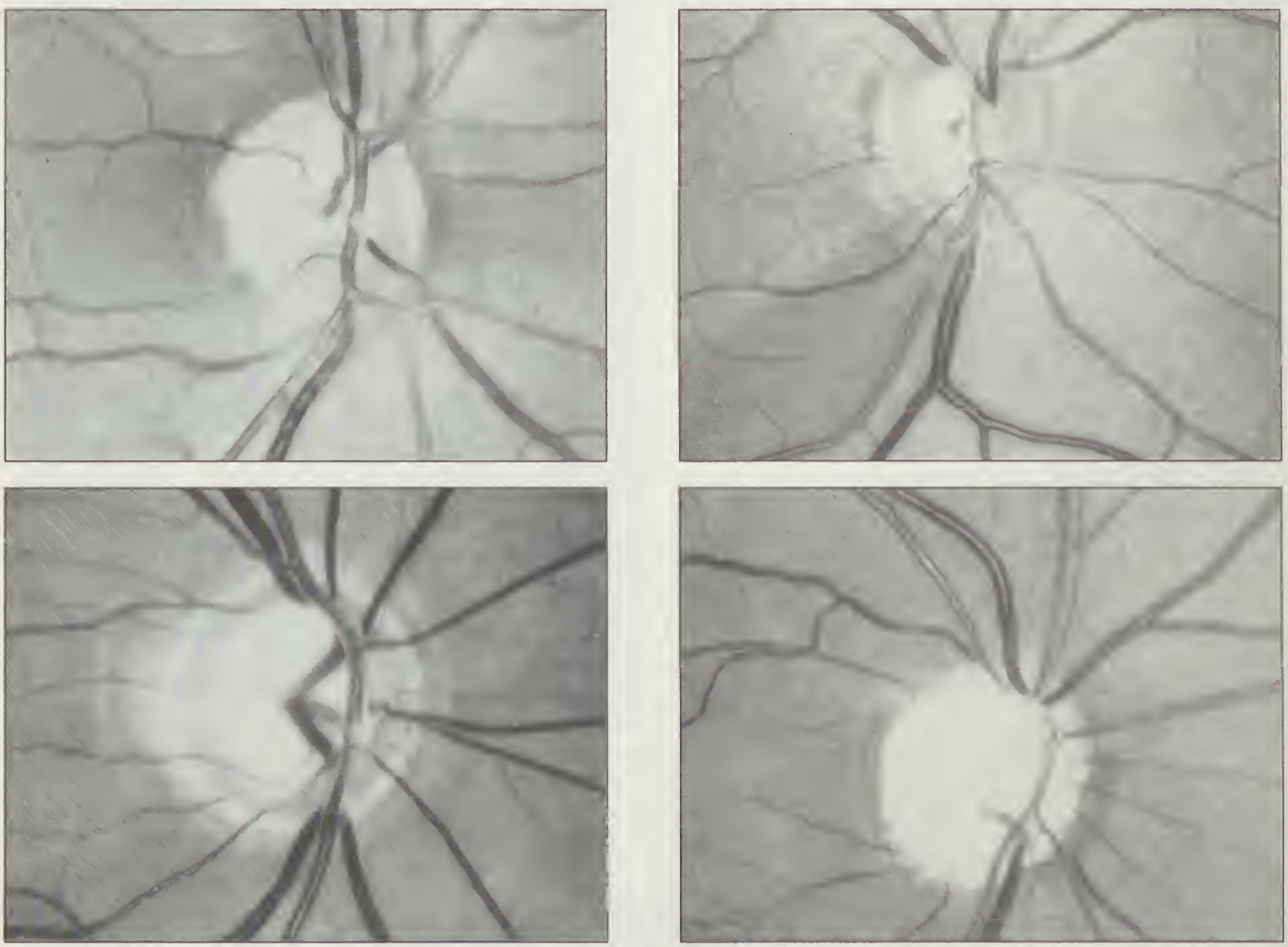


Figure 1. The figure illustrates four optic discs, the first, upper left, is normal. The central disc has a small paler area, the cup, and blood vessels course across the rim of the disc without deviation until they reach this central zone. The upper right disc has lost a notch of tissue from its lower pole, leading to enlargement of the cup in this direction. a further stage of damage, with the central pale cup occupying much of the disc and blood vessels seeming to fall over the edge of the disc rim at the margin of this cup. The lower right photograph shows a totally atrophic glaucoma disc, in which the cup is as large as the disc and blood vessels dive into the disc at its very margin.

ure 2). It is feasible to diagnose and to follow glaucoma damage in human eyes with systems that quantify the disc appearance and measure its changes over time. Whether such systems will be clinically useful and financially practical remains to be seen.

Retinal Nerve Fiber Layer

Better methods than simple optic disc observation are needed to detect glaucoma damage at its earliest stage. A group at Johns Hopkins began to examine the retina near the optic disc in the green light of an ophthalmoscope over 10 years ago. Our aim was to detect and subjectively to analyze the number of optic nerve fibers by clinical examination.

We concluded that nerve fiber layer examination is a simple, inexpensive, and reliable means to detect early glaucoma injury, even prior to the development of reproducible visual field defects[3] (Figure 3). In our prospective study of 1,500 patients over an eight year period, nerve fiber layer examination appears to be more sensitive for detecting damage than is disc examination.

Visual Field Testing

Perhaps the greatest recent change in the diagnosis of glaucoma damage is the introduction of new methods for testing the visual field. To detect loss of side vision, the patient traditionally looked into a dimly illuminated bowl and was asked to respond when a target light appeared. This general approach is now formalized into programs of stimulus presentation that are selected and analyzed by computer microprocessors. The machines are able to test more rapidly and objectively that a purely human tester might, though experienced technicians are still vital during testing. The graphics capability of the instrument adds significantly to the understanding of the findings (Figure 4).

Further improvements have been the addition of comparison normal data and sophisticated statistical differentiation of true abnormality from random variation. Correlation of histological material from glaucoma eyes donated to eye banks with automated visual field studies performed in the same eyes during the patient's life have confirmed the greater sensitivity of new field tests over past systems.[4]

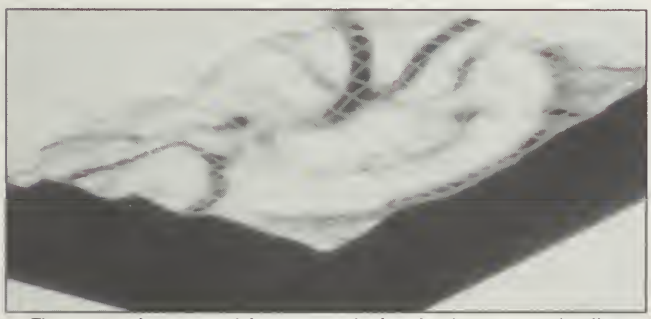


Figure 2. Automated image analysis of a human optic disc allows the conversion of the image into digital data that can be reprocessed and expressed as a pseudo three-dimensional wireplot.

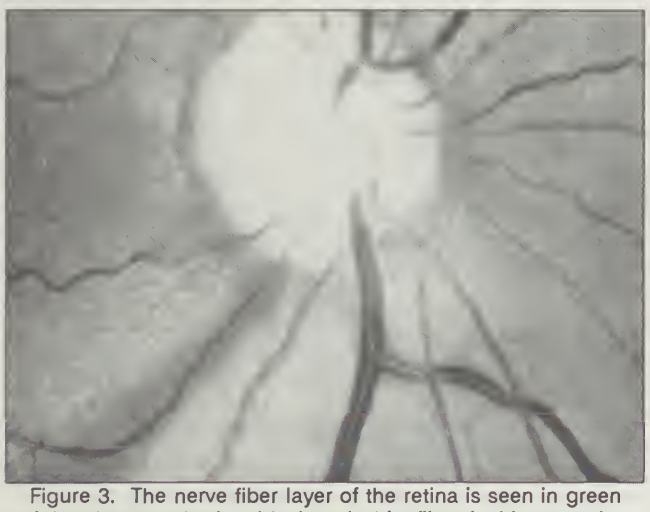


Figure 3. The nerve fiber layer of the retina is seen in green light, photographed on black and white film. In this example, a defective area with loss of the normal striated pattern due to glaucoma damage is shown at the 7 o'clock position of the disc, extending out to the lower left.

Implications for Glaucoma Screening

Previously, measurement of eye pressure by tonometry seemed an appropriate means to identify those with glaucoma seen in a general medical practice. While tonometry is far from useless, it is obvious that the separation of the population at risk for glaucoma damage is poorly performed by pressure screening alone. Studies are under way to evaluate combinations of questionnaires, tonometry, and retinal examination of optic disc and nerve fiber layer, along with rapid, automated visual field screening.

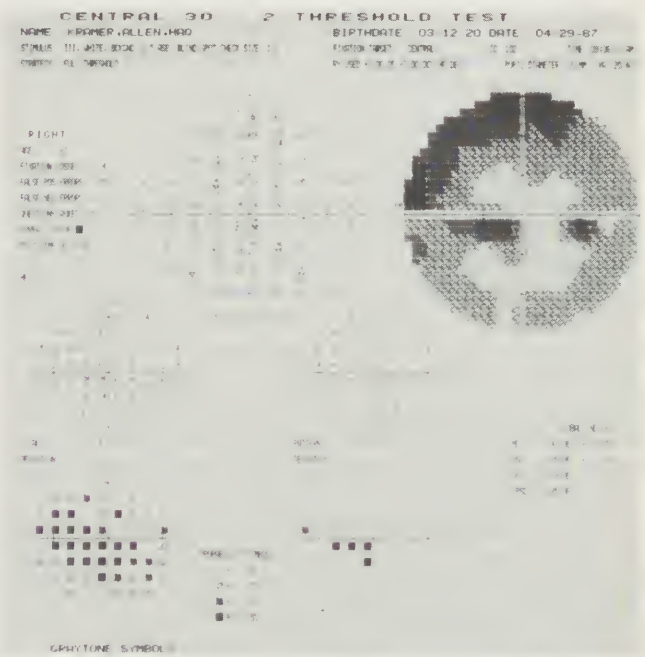


Figure 4. The output from an automated visual field test shows not only the raw data on sensitivity of the patient but also a gray scale image to provide an overview of the result, numerous comparisons to normal age-matched control data, and indices that express the degree of abnormality with appropriate statistical probability.

Risk Factors for Glaucoma

Recent epidemiological data support past studies that assign a greater risk of glaucoma to certain groups. In screening for glaucoma, a questionnaire can be very effective in detaching those with the following high-risk characteristics:

- Blacks (risk of glaucoma 4 to 5 times higher than whites)
- Family history of glaucoma (risk up to 10 times that of the general population)
- Near-sighted persons (myopes)
- Diabetics
- Those with systemic hypertension
- Smokers

Therapy

The analogy between systemic hypertension and open-angle glaucoma is frequently made. Both involve an elevation of a physiological parameter that has long-term consequences in persons with other risk factors that predispose to injury. By no means do all persons with either form of high pressure suffer serious damage from the abnormality. In fact, there is a strong association between high blood pressure and high eye pressure.

The early phase of glaucoma damage are more easily observed and detected than is early damage to heart, kidney, or cerebrum by systemic hypertension. We are fortunate that examination of the optic disc, the retinal nerve fiber layer, and the subjective assessment of the visual field provide substantial information about whether the level of intraocular pressure has, in fact, injured the eye. As a result, the decision to treat the eye at risk for glaucoma depends in large part on whether damage to visual structure or function already exists.

In general, the present approach is to initiate therapy for any person who has evidence of optic nerve injury *or* whose risk of injury is judged to be substantial.

Initial Glaucoma Treatment

At present most ophthalmologists initially lower the intraocular pressure by prescribing eyedrops, usually beta adrenergic blocking agents (Timoptic®, Betagan®, or Betoptic®). These are used twice daily and have few ocular side effects. However, the systemic effects of eyedrops should be re-emphasized. Bradycardia, bronchospasm, and potentiation of congestive failure are not infrequent results of these agents. The therapeutic goal of the ophthalmologist is to lower the pressure substantially such that there is no further change in the parameters being monitored (disc, nerve fiber layer, and visual field).

Other glaucoma topical agents are used; the side effects of epinephrine (Propine®, Glaucon®, Eppy,® Epifrin ®) are obvious: tachyarrhythimias, elevations in blood pressure, and exacerbations of angina. Pilocarpine® drops cause few systemic effects.

Pills for glaucoma consist of carbonic anhydrase inhibitors (Diamox®, Neptazane®). These lead to a syndrome of lethargy, tingling in the extremities, and loss of appetite that limit their use in half those to whom they are prescribed. Furthermore, the infrequent but serious association with kidney stones, hypokalemia, and aplastic anemia have limited the use of these drugs.

Three new classes of drugs are being evaluated in human trials and may enter widespread use soon. The alpha adrenergic agonist group is represented by apraclonidine, a close molecule to clonidine (Catapres®). Additionally, carbonic anhydrase inhibitors are being evaluated in eyedrop form. In addition, prostaglandin F 2 alpha has been shown to lower eye pressure as an eye drop.

Laser Surgery

Laser surgery for open-angle glaucoma (argon laser trabeculoplasty [ALT]) occupies a place between medical and surgical treatment. A national collaborative trial is investigating ALT as initial therapy of glaucoma prior to medical treatment. This painless, outpatient treatment is widely used but rarely leads to total, long-term control of eye pressure. It is, however, a helpful adjunct. Few late complications have been recognized with ALT.

Operative Surgery

Surgery for glaucoma (trabeculectomy) is being evaluated in proposed trials as an earlier treatment, though it is reserved generally for use after medical and laser treatment have failed to halt progressive vision loss. This surgery aims to produce a controlled leak in the eyewall to act as a safety valve. It succeeds only when normal healing is suppressed. In the last three years, daily postoperative injection of 5-fluorouracil under the conjunctiva has been added to inhibit unwanted healing and to help keep open the drainage channel.

When standard glaucoma surgery to allow aqueous leakage fails, various energy modalities have been used to suppress the formation of aqueous humor. Cryotherapy has now been joined by transscleral laser techniques.

Angle-Closure Glaucoma

The most significant change in the treatment of this glaucoma is the replacement of surgical iridectomy by laser methods. With topical anesthesia on an outpatient basis the neodymium: YAG laser is now able to produce a hole in the iris to prevent or treat this form of glaucoma in nearly every susceptible eye.

References

1. Armaly MF, Krueger DE, Maunder L et al. Biostatistical analysis of the collaborative glaucoma study. Arch Ophthalmol 1980;98:2163-71.
2. Sommer A. Intraocular pressure and glaucoma. Am J Ophthalmol 1989;107:186-88.
3. Sommer A, Quigley HA, Robin AL et al. Evaluation of nerve fiber layer assessment. Arch Ophthalmol 1984;102:1766-71.
4. Quigley HA, Dunkelberger GR, Green WR. Retinal ganglion cell atrophy correlated with automated perimetry in human eyes with glaucoma. Am J Ophthalmol 1989;107:453-64.

Alzheimer's Disease Research at Johns Hopkins

Barry W. Rovner MD and Marshal F. Folstein MD

Dr. Rovner is an Assistant Professor Psychiatry and Behavioral Sciences and Dr. Folstein is the Eugene Meyer III Professor of Psychiatry and Medicine, The Johns Hopkins University School of Medicine, Baltimore.

The emergence of Alzheimer's disease from relative obscurity to front-page news is related to the increased life expectancy and increased proportion of the population over 65 years old. About 8 percent of the US elderly population suffer from the disease.

Alois Alzheimer described cognitive symptoms of amnesia, aphasia, and apraxia along with noncognitive symptoms of delusions and agitation in his classic case:

> A 51-year-old woman's show of jealousy toward her husband was the first noticeable sign of the disease. Soon a rapidly increasing loss of memory could be noticed. She could not find her way around her own apartment and she carried objects back and forth, hiding them. At times she would think that someone wanted to kill her and would begin to shriek loudly.

The postmortem examination of this patient led to Alzheimer's description of a "unique disease of the cerebral cortex" characterized by "a consistently atrophic brain" that revealed upon microscopic examination "peculiar changes of the neurofibril" and "miliary foci distinguishable by the deposit in the cerebral cortex of a peculiar substance". This was the first description of neurofibrillary tangles and neuritic plaques with amyloid cores now recognized as the characteristic pathology of Alzheimer's disease (AD).

The emergence of AD from relative obscurity to front-page news is related to the increase of life expectancy and the increase in proportion of the population over the age of 65. Because AD is an age-dependent disorder, the aging of the population will lead to greater numbers of affected people. Currently, about three million Americans, approximately 8 percent of the United States elderly population, suffer from AD.

Traditionally the disease has been referred to as the presenile onset of cognitive impairment and progressive decline, but recent epidemiological and pathological research suggests that presenile dementia differs little from the late-onset type, formerly called "senility" or organic brain syndrome. The major conceptional change that has occurred, however, is the recognition that "senility" is a neuropsychiatric condition due to specific diseases such as AD or multi-infarct dementia and is not an inevitable

consequence of aging. This change and the recognition that Alzheimer's dementia is a common and specific disease with certain clinical characteristics and a particular pathology have stimulated much of the research in AD at Hopkins. While we will emphasize the clinical rather than the basic science research, we acknowledge that we underestimate the breadth and richness of the latter endeavors and accomplishments.

Advances in Clinical Diagnosis

Clinical research at Hopkins began in 1979 with the establishment of the Dementia Research Clinic, a neuropsychiatric clinical and teaching program based in the Department of Psychiatry and Behavioral Sciences, that provides multidisciplinary evaluation, diagnosis, and continuing care for Alzheimer's patients and their families. This program is also the clinical arm of the National Institute on Aging's Alzheimer's Disease Research Center (ADRC) at Hopkins.

In 1984, Guy McKhann MD, Marshal Folstein MD, and others described the central clinical criteria for the diagnosis of probable AD, including the insidious onset and progressive decline in memory and other cognitive functions (Table 1). These criteria were adopted by the National Institute of Neurological and Communicative Disorders and Stroke (NINCDS) and the Alzheimer's Disease and Related Disorders Association (ADRDA) to facilitate the study of the natural history of the disease and to advance clinical, therapeutic, and pathological research.[1]

One of the NINCDS diagnostic criteria is the demonstration of cognitive impairment on neuropsychological tests. The Mini-Mental State Examination is among the most widely used tests for this purpose and for the longitudinal assessment of the clinical course in AD.[2] Approximately 90 percent of Hopkins ADRC patients show abnormalities on this scale, and their average rate of decline is 4 points per year. A modification of the Mini-Mental State Examination is the Telephone Interview for Cognitive Status, or TICS, which screens for cognitive impairment by telephone, expanding the screening potential of this assessment methodology.[3]

Table 1. Criteria for Clinical Diagnosis of Probable Alzheimer's Disease

- Dementia established by clinical examination and documented by the Mini-Mental Test, Blessed Dementia Scale, or some similar examination, and confirmed by neuropsychological tests
- Deficits in two or more areas of cognition
- Progressive worsening of memory and other cognitive functions
- No disturbance of consciousness
- Onset between ages 40 and 90, most often after age 65
- Absence of systemic disorders or other brain diseases that in and of themselves could account for the progressive deficits in memory and cognition.

Recent clinical studies of AD at Hopkins have focused on 210 patients enrolled in the ADRC who probably or possibly have AD. These studies describe the natural history of the disease with a focus on biological markers, behavioral and functional assessments, and predictors of prognosis. To determine if biological markers exist for AD, cerebrospinal fluid (CSF) from Alzheimer's patients was examined and found to have significantly lower acetylcholinesterase activity than did CSF from controls. (This enzyme is known to be reduced in AD brains.) Along with other CSF proteins such as Alz 50 and the Tau protein (components of abnormal neurofibrils), these CSF assays may become useful diagnostic tests to confirm the clinical diagnosis of AD.

Once the clinical diagnosis is made assessment of noncognitive psychiatric symptoms (such as depression) and functional abilities (such as driving) become important. Approximately 17 percent of AD patients exhibit a sustained change in mood and behavior characterized by depression, tearfulness, and feeling like a burden.[4] These depressed AD patients are more cognitively impaired and disabled in activities of daily living such as dressing and bathing than are nondepressed AD patients.

While depression might be an understandable reaction to having AD, two other possibilities exist. The first is that depressed AD patients may have a genetic vulnerability to depression. We found that the prevalence of depression in first-degree relatives of depressed AD patients is higher than the rate found in relatives of nondepressed AD patients. The second is that a particular neuropathology may exist in depressed AD cases. They have been found to have fewer noradrenergic neurons in the locus ceruleus of the brain, suggesting that some individuals have a distinct neuropathology that predisposes them to depression. Antidepressants improve the mood and functioning of some depressed, demented patients, making accurate recognition and prompt treatment important in the clinical care of AD patients. By improving our understanding of the neuroanatomy of depression, these studies may advance our knowledge of normal and abnormal neurophysiology of mood and refine our treatments of mood disorders in general.

Because AD patients may be at greater risks of having automobile accidents, a simple 20-item screening questionnaire was devised and administered to ADRC patients. Thirty percent had at least one accident since the onset of dementia, and an additional 11 percent were reported by caregivers to have caused accidents. We are now using a driving simulator to identify aspects of cognitive dysfunction such as memory, visual-spatial ability, and reaction time to predict unsafe driving habits and to enable us to counsel patients and families about the advisability of driving.

These studies of depression and driving underscore the fact that AD can be emotionally devastating to the patient and family. Research in the Dementia Clinic first reported the problems facing caregivers.[5] Table 2

lists patient behaviors that cause the most serious problems for caregivers, and Table 3 shows the problems caregivers face themselves. Practical solutions to these problems were provided in *The 36-Hour Day*,[6] a Hopkins publication that provides useful information about the disease and reminds caregivers that anger, helplessness, and fatigue (common feelings they will face) will need recognition and treatment.

Advances in Prognosis

One defining feature of AD is its inevitable progression. Because patients progress at varying rates, identifying prognostic features would help predict future care needs and possibly identify subtypes of the disease. We found that language impairment may be a distinguishing feature of early-onset AD predicting a more rapid decline. Other clinical features which may predict precipitous decline are extrapyramidal symptoms, myoclonus, and psychosis. Currently, we are enrolling recently diagnosed AD patients to study the prognostic value of these clinical features. Also, in an effort to identify the clinical features that will best predict nursing home placement, we have identified depression as one of the strongest, along with functional status and incontinence.

Advances in Treatment

While no primary treatments exist for AD, an experimental drug tetrahydroaminoacridine (THA) appears to reduce memory loss in a small group of AD patients. A multicenter trial is under way, and in Baltimore, the Francis Scott Key Medical Center is the participating center. Because early results have been encouraging, the study likely will continue to enroll new patients.

Until a cure or treatment is found, symptomatic treatments of behavioral symptoms are helpful. Antipsychotic medications commonly are used to treat delusions and hallucinations, however, they induce extrapyramidal side effects in a population prone to these symptoms. In comparing the efficacy and safety of haloperidol and thioridazine, Hopkins researchers found that while both drugs are equally effective in reducing hostility and irritability, thioridazine produced fewer extrapyramidal side effects and fewer complaints of fatigue.[7]

As mentioned earlier, nursing home placement is a frequent outcome for AD patients. In 1985 we developed a special Alzheimer's Care Unit in a local, proprietary nursing home owned by Meridian Healthcare. We compared the outcomes of AD patients residing on this unit with other AD patients in the same nursing home over a one-year period and found that the functional capacity of Unit patients remained stable over the period while that of nonunit patients declined. This study suggests the usefulness of Alzheimer's care units in nursing homes and indicates the need to provide this kind of care for AD patients in other nursing homes.

Advances in Research

Epidemiology To determine the prevalence and meaning of cognitive impairment in elderly dwelling in a community, 3,481 adults in East Baltimore were interviewed using the Mini-Mental State Examination, and a subset were examined by neurologists and psychiatrists. We found that the prevalence of dementia from all causes was 6.1 percent of this elderly population and 2 percent was due to AD.[8]

Epidemiological studies also were conducted in nursing homes to determine the prevalence of AD in this setting. We studied 454 consecutive patients newly admitted to eight Baltimore nursing homes and found that 80 percent had a psychiatric disorder.[9] The most frequent diagnosis was dementia (67.4 percent), most commonly due to AD. Forty percent of demented patients had additional psychiatric syndromes such as delusions or depression, constituting a distinct subgroup that predicted frequent use of restraints and neuroleptics. Data showed that AD was the most common diagnosis in Baltimore nursing homes and that care of demented patients is quite restrictive in terms of using physical and chemical restraints.

Neuroimaging Using a variety of neuroimaging techniques, Hopkins scientists are studying the anatomy and pathophysiology of AD. Single Photon Emission Computed Tomography (SPECT) scans are being used to measure cerebral activity based on regional cerebral blood flow. In AD, flow deficits in temporoparietal cortex have been observed. SPECT scanning also aids in the differentiation of Multi-Infract Dementia (MID) from AD. In MID, focal deficits in blood flow can be demonstrated indicating ischemic areas consistent with the vascular ethology. Also, MRI scans are being used to record brain changes over

Table 2. Behaviors Cited as Causing Serious Problems

Behavior	No. of Families Reporting	Families Reporting it as a Serious Problem No. (%)
Physical violence	23	18 (75)
Memory disturbance	37	25 (68)
Incontinence	21	13 (62)
Catastrophic reactions	45	25 (56)
Hitting	16	8 (50)
Making accusations	32	16 (50)
Suspiciousness	33	16 (48)

Table 3.Problems Caregivers Cite for Themselves (N-55)

	No.	%
Chronic fatigue, anger, depression	48	87
Family conflict	31	56
Loss of friends and hobbies, no time for self	30	55
Worry that caregiver will become ill	17	31
Difficulty assuming new roles and responsibilities	16	29
Guilt	14	25
None	4	7

time to separate mild, slowly progressive cases from normal aging and from more rapidly progressive cases. Finally, regarding neurophysiological abnormalities, PET scans are being used to quantitate opiate receptor activity in the amygdala as a possible premortem diagnostic test for AD.

Neuropathology Acetylcholine is a neurotransmitter known to be involved in memory. Neurochemical studies reveal that the enzyme which synthesizes acetylcholine, choline acetyl transferase, is significantly reduced in the cerebral cortex and hippocampus in AD patients. Hopkins neuropathologists have found that the major cholinergic innervation to the cerebral cortex derives from the basal forebrain. In AD there is a consistent and marked degeneration in a particular basal forebrain nucleus, the nucleus basalis of Meynert.[10] Thus, the cholinergic deficit in the cortex and hippocampus appears to result from degeneration in the basal forebrain. This discovery was an important first step in the identification of the specific neurochemistry and neuropathology of AD.

Molecular Genetics AD was associated with Down syndrome (DS; trisomy 21) about 25 years ago when neuropathologists found that most DS patients develop AD after age 40. Hopkins researchers have been studying DS patients and have found that some older DS patients develop depression and cognitive decline similar to AD.[11] Brain CT scans of DS patients also revealed that suprasellar cistern measures, an index of cerebral atrophy, correlate with the onset of dementia in DS as they do in AD.

Regarding etiology, chromosomal studies of DS patients and family members revealed that recombination on chromosome 21 is reduced, suggesting that DS may result from an error in meiosis. Furthermore, Joseph Coyle MD has studied trisomic 21 mice, thereby providing an animal model for a range of studies of chromosome 21.

Since DS results from triplication of chromosome 21, research in AD also has focused on this chromosome, and genetic mechanisms in AD have been proposed. A familial subtype of AD is known to follow an autosomal-dominant transmission. In 1984, using strictly defined AD cases and controls, we found that language disorder and agraphia strongly predicted familial aggregation of dementia. This general hypothesis later received support when researchers focused on the amyloid core of neuritic plaques. Based on the amino acid sequence of the amyloid protein, researchers identified the gene coding for amyloid on chromosome 21.[12] About the same time, a genetic marker on chromosome 21 was identified in four families with autosomal dominant AD, apparently near the amyloid gene location.[13] Identification of the amyloid gene and a gene marker for familial AD both on chromosome 21 suggests that the regulation of these genes may be important in the pathogenesis of AD.

To advance molecular genetic research in AD, Hopkins was recently awarded a $6 million grant by the National Institution on Aging. The Leadership Excellence in Alzheimer's Disease (LEAD) Award cites the work of Donald L. Price MD, Director of the Johns Hopkins ADRC. He and other neuropathologists at Hopkins are now studying the regulation of the amyloid gene. They will examine patterns of amyloid gene expression as a function of age and will compare levels of expression of the gene in regions vulnerable to the depositon of amyloid (frontal and temporal areas) with less vulnerable areas (occipital cortex and cerebellum). They also have begun to construct a linkage map for chromosome 21 based on DNA markers in 40 large families in which AD occurs frequently.

Taken together, these studies may clarify the mechanisms leading to the selective loss of specific neurons in AD and subsequently may direct therapeutic efforts to improve the condition or to prevent the its progression.

References

1. McKhann G, Drachman D, Folstein M, Kapman R, Price D, Stadlan E. Clinical diagnosis of Alzheimer's disease. Neurology 1984;34:939-44.
2. Folstein MF, Folstein SE, McHugh PR. Minimental state. A practical method for grading the cognitive state of patients for the clinician. J Psychiatr Res 1975;12:189-92.
3. Brandt J, Spencer M, Folstein MF. The telephone interview for cognitive status. Neuropsychiatry Neuropsychol Behav Neurol 1988;1:111-18.
4. Rovner BW, Broadhead J, Spencer M, Carson K, Folstein MF. Depression and Alzheimer's disease. Am J Psychiatry 1989;146:350-53.
5. Rabins PV, Mace NL, Lucas MJ. The impact of dementia on the family. JAMA 1982;248:89-91.
6. Mace NL, Rabins PV. The Thirty-six Hour Day. Baltimore: The Johns Hopkins University Press, 1981.
7. Steele C, Lucas MJ, Tune L. Haloperidol versus thioriazine in the treatment of behavioral symptoms in senile dementia of the Alzheimer's type, J Clin Psychiatry 1986;47:310-12.
8. Folstein MF, Anthony JC, Parhad I, Duffy C, Gruenberg EN. The meaning of cognitive impairment in the elderly. J Am Geriatr Soc 1985;33:228-35.
9. Rovner BW, German P, Broadhead J, Morriss R, Brant L, Blaustein J, Folstein MF. The prevalence and management of dementia and other psychiatric disorders in nursing homes. Int Psychogeriatrics Spring 1990.
10. Whitehouse PJ, Price DL, Clark AW et al. Alzheimer's disease: Evidence for selective loss of cholinergic neurons in the nucleus basalis. Ann Neurol 1981;10:122-26.
11. Warren AC, Holroyd F, Folstein MF. Major Depression in Down's syndrome. Br J Psychiatry 1989;155:202-205.
12. Goldgaber D, Lerman M, McBride O et al. Characterization and chromosomal localization of a cDNA Encoding brain amyloid of Alzheimer's disease. Science 1987;235:877-79.
13. St. George-Hyslop, Tanzi RE, Polinski RJ et al. The genetic defect causing familial alzheimer's disease maps on chromosome 21. Science 1987;235:885-90.

Highlights: Executive Committee and Council Actions

Executive Committee - November 16, 1989

All matters were referred to Council.

Council - November 16, 1989
380th Meeting

Committee Reports

Ad Hoc Committee for Maryland Blue Cross/Blue Shield Psychiatric Benefits - Dr. Louis C. Breschi, Chairman of the ad hoc committee, reported on the committee's deliberations concerning the recent change in psychiatric treatment benefits offered by the Med Chi Insurance Fund to physician members through the Greenspring Mental Health Services, an HMO organization sponsored by Maryland Blue Cross and Blue Shield. Following lengthy discussion and consideration of a resolution presented by Dr. Breschi, Council amended the resolution, which was adopted as follows:

> RESOLVED, That the Medical and Chirurgical Faculty of Maryland oppose utilization review involving patient contact; and
> RESOLVED, That the President of the Faculty appoint a Task Force to develop a proposal for a managed care system for psychiatric services acceptable to the Med Chi Insurance Fund. The Task Force shall include but not be limited to representation from the Maryland Psychiatric Society, Suburban Maryland Psychiatric Society, Psychoanalytic Societies, the Maryland Society for Adolescent Psychiatry; and representatives from appropriate psychiatric utilization review organizations in the State of Maryland.

Committee on Hospital Medical Staffs

Springfield Hospital Center Dr. Victor R. Hrehorovich, Chairman, briefed Council on the involvement of the Faculty's Committee on Hospital Medical Staffs in the mediation of differences between the medical staff and the administration of the Springfield Hospital Center and presented a resolution for the Council's consideration. Following discussion and a minor modification, the resolution was adopted unanimously by the Council as follows:

> RESOLVED, That the Faculty support the Medical Staff of Springfield Hospital Center by issuing a generic statement (Amicus Curiae) regarding the proper framework for self governance of Medical Staff activities and accountabilities to the governing body; and
> RESOLVED, That the Faculty make available its resources to both parties to mediate and resolve problems to the ultimate benefit of patients cared for at Springfield Hospital Center.

It was pointed out that any time legal action is required in matters such as this the issue must be brought before the Med Chi Council for approval.

Credentialing Following Dr. Hrehorovich's presentation of the recommendations of the Committee on Hospital Medical Staff, the Council discussed at great length the proposals of the committee for the establishment of a professional credentialing records service as a joint venture with the Maryland Hospital Association. After much debate over the issue and several amendments, the Council adopted the following recommendations:

> That the Council authorize the Executive Director to proceed with negotiations with the MHA to establish Professional Credentialing Record Service, Inc.; and
> That the Executive Director continue to refine Med Chi's own Credentialing Program. Should negotiations with MHA be successful, the Faculty's Credentialing Record Program will fold into the new corporation; and
> That if the joint venture does not occur, the Faculty will continue with its own credentialing program.

Committee on Young Physicians Dr. Susan W. Owens presented to Council the results of a recent Survey of Young Physicians. The survey reported figures in areas such as age, sex, location, financial debt, personal income, top priorities in life, average total hours per week, etc. The report proved to be informative as well as interesting to members of the Council, and Dr. Owens was recognized for her hard work with a round of applause.

Committee on Drugs The Council accepted the Committee's report and acted upon the recommendations contained therein as follows:

a. Granted approval of correspondence to be sent to the Division of Drug Control and the Board of Physician Quality Assurance regarding referrals of routine pharmacy surveys.
b. Approved the committee's request for correspondence to be sent to the Division of Drug Control approving the changes to COMAR 10.13.10.

Peer Review Committee Dr. Nagel informed the Council that the Executive Committee had discussed the recommendations contained in the report of the Peer Review Committee concerning the request for a Faculty policy on the payment of dinner by committee members, and the scheduling of committee meetings to avoid parking problems. He reported that the Executive Committee agreed that all committee members who desire to have dinner during the Faculty committee meetings are responsible for payment of such dinners, and committee meetings shall continue to be scheduled at the convenience of the committee members. The Council concurred in the decision of the Executive Committee.

Emeritus Membership Council approved the following physicians for Emeritus Membership in the Faculty as requested by the component society indicated:

Baltimore City
Talmadge H. Pinkney MD, *Baltimore*
Montgomery County
Kenneth Cruze MD, *Silver Spring*

Arthur J. Levens MD, *Olney*
Richard C. Myers MD, *Bethesda*

Wicomico County
Harold N. Eccleston MD, *Parsonburg*
Aubrey C. Smoot, Jr., MD, *Salisbury*

These names will be presented to the House of Delegates for consideration at its 1990 annual session.

White Papers Draft copies of "white papers" on "The Problem of the Uninsured," "Allied Professions," and the "Physician Role in Business Enterprises" were distributed to Council for consideration of approval. The Council adopted the proposed position on "The Problem of the Uninsured" with one minor amendment. Many members were concerned with the wording of the "Allied Professions" position paper that resulted in a motion, duly seconded and adopted, to refer this paper back to Dr. Murray A. Kalish to be coordinated with Susan R. Guarnieri MD, Chairman of the Legislative Committee, for review and revision. The "Physicians Role in Business Enterprises" proposed position paper was defeated.

Semiannual Meeting - Dr. Ernest E. Harmon, Chairman-Elect of the Committee on Scientific Activity, requested Council's approval of the proposed site and dates for the 1990 Semiannual Meeting - the Southhampton Princess Hotel in Bermuda, September 5-9, 1990. Dr. Harmon stated that past meetings at this location provided top service and first class accommodations and that the hotel has agreed to hold 50 rooms without deposit. After discussion, the Council approved the site and dates for the 1990 Semiannual meeting, and directed that, as recommended by the Executive Committee, a registration fee of $500 be charged each attendee.

1990 Meeting Dates - Council approved the proposed meeting dates for 1990 as follows:

Thursday, January 18, 1990, 4:00 p.m.
Thursday, February 15, 1990, 4:00 p.m.
Thursday, March, 15, 4:00 p.m.

Annual Meeting, Turf Valley Hotel and Country Club
Wednesday, May 9, 8:30 a.m.
Friday, May 11, 1990 (immediately following the 2:00 p.m. House of Delegates meeting)

Semiannual Meeting, Faculty Building
Saturday, September 15, 1990, 10:00 a.m.

Thursday, October 18, 1990, 4:00 p.m.
Thursday, November 15, 1990, 4:00 p.m.

State Commission on Kidney Disease Nominations The Council approved the following names for nomination for a position on the State Commission on Kidney Disease:

Mark Rubin MD (Nephrology)
Frederick County
Steven Pollak MD (Internal Medicine, Nephrology)
Prince George's County

Oregon Medical Association Dr. Louis Breschi, Chairman of the Committee on Professional Ethics, requested the Council's approval of a letter to the Oregon Medical Association urging the association to oppose the placement of the "Death with Dignity Act" on the Oregon ballot. The letter points out that taking such a position will enable patients to continue to rely on physicians, rather than legislation, when they are confronted with death and dying issues. After discussion, the Council voted to refer the matter to the Faculty's President with the request that he contact the President of the Oregon Medical Association by telephone to discuss the issue and to report back to the Council at its next meeting.

Resolution Supported Dr. Robert Kent, a member of the Committee on Physician Rehabilitation, on behalf of the committee, requested Council's support of the New Jersey Medical Society's resolution entitled, "Funding of AMA's Physicians' Assurance Program." After a brief discussion, the Council rendered a vote of support and referred the matter to the AMA Delegation with the recommendation that the delegation support the resolution during the AMA Interim Meeting in December.

New Council Member The chairman, Dr. J. David Nagel, introduced Dr. Kenneth B. Lewis, Council representative of the Faculty's Committee on Specialty Societies, who was welcomed with a round of applause by the members of Council.

Auxiliary Mrs. Vicki Cameron, Auxiliary President, was on hand to give a brief report on the activities of the Auxiliary. Some highlights of the report included the addition of Kent County into the Auxiliary membership and the involvement of the Auxiliary in a child abuse project. A formal report will be submitted at a later date.

Workman's Compensation - Prince George's County The Council approved intervention by the law firm of Rifkin, Evans, Silver, and Lamone on behalf of Dr. Joel Falik in a lawsuit originating in Prince George's County. The lawsuit revolves around the issue of physician fees prescribed by the Workman's Compensation Commission's *Guide of Medical and Surgical Fees*. The Faculty is authorized to file an amicus curiae brief expressing its concern about the current fee structure.

Executive Committee - December 21, 1989

Committee on AIDS The Committee's report of November 15, 1989 was accepted with no recommendations. Dr. Dobridge suggested that the Committee on AIDS be informed of the recent AMA decision that persons in contact with the AIDS virus be appropriately tracked.

Finance Committee Dr. Yosuico, Chairman and Treasurer, presented the Finance reports of November 20 and December 18, 1989. He pointed out that the Finance Committee had amended its November 20, 1989 minutes to indicate that its recommendation was for the Executive Director to investigate the "usage" of

the Library; not the "costs" as indicated in the November 20 minutes. Mr. Troisi informed the Executive Committee that part-time staff in the Library was doing an adequate job, and it may not be necessary to hire additional full-time employees at this time.

Regarding the possibility of capitalizing on the Library's old book collection, estimated to be worth approximately $6 million, the Library Committee requested that the issue be tabled until a joint meeting could be held with the Library Committee and the Finance Committee to discuss the issue further. Following discussion, the Executive Committee adopted a motion to table the issue until the two committees could meet to evaluate the assets of the Library as a whole, followed by a report with recommendations to the Executive Committee and Council.

1990 Budget Dr. Yosuico presented the proposed 1990 budget, which was reviewed by the Executive Committee. The proposed budget will be forwarded to the Council for consideration during its January meeting.

Legislative Committee Report of October 25, 1989, accepted; no action required.

Gerry Evans gave a verbal report of the Committee's meeting of December 20, 1989. During the discussion, it was noted that Med Chi's present position is in opposition to all smoking. A motion was adopted to support the Legislative Committee in the introduction of legislation, as follows, concerning the sale of cigarettes:

1. The sale of cigarettes and other tobacco products to people under the age of 21 would be illegal.
2. The sale of such items to those individuals under that age of 21 would result in the loss of one's license to sell all tobacco products. A one-time warning shall be given without monetary consequence.

Liaison Committee with Medical Assistance Program Correspondence from Nelson J. Sabatini, DHMH, dated November 27, 1989, in response to Med Chi's suggested changes in the payment schedule for emergency physicians under the Medicaid Diversion Plan, was accepted by the Executive Committee. It was agreed that no further communication on this issue would be required. Michael Murray gave a brief verbal report on the Committee's meeting of December 20, 1989.

Committee on Professional Ethics The Executive Committee was informed that in accordance with the committee's request and as directed by Council at its meeting of November 16, 1989, staff had contacted the Oregon State Medical Society (OMS) and learned that the OMS is not supporting the "Death with Dignity Act" in that state. They have accepted the position of the AMA: physicians should not participate in assisting in the demise of individuals.

Committee on Public Health The Committee's report of December 6, 1989, was accepted.

Municipal Health Services Program The Executive Committee discussed the issue surrounding the Municipal Health Services Program and the Public Health Committee's draft letter referring the matter to the Baltimore City Medical Society. Dr. Dobridge moved to amend the letter by adding a sentence to express Med Chi's grave concern that this program could have a detrimental effect on the practice of the private physician and other health care providers in eastern Baltimore City. The motion was adopted, and the letter will be sent to the BCMS as amended.

National Cancer Institute The Subcommittee on Maternal Welfare submitted recommendations relative to a grant awarded to the Department of Health and Mental Hygiene by the National Cancer Institute for the detection and treatment of breast cancer and cervical cancer in Maryland. It was agreed that the committee should continue its coordinating efforts with the Department.

Public Relations Committee The Public Relations Committee report of November 15, 1989 was accepted, and the following recommendations contained in the report were considered:

1. That the committee conduct a promotional campaign to encourage readers to read the *Maryland Medical Journal*;
2. That the Faculty bylaws be changed to *require* Councilors' and Delegates' to report to their local component societies following Council meetings; and
3. That an open forum regularly be included on the Council's agenda to allow the membership to air their concerns regarding the society and medicine.

Item 1 was tabled until such time as the Public Relations can provide cost figures involved in conducting such a campaign.

Item 2 - It was pointed out that because the councilors and delegates to Med-Chi are elected by their respective component societies, it was within the purview of the component societies to require reports from their representatives. However, Dr. Nagel stated that members of the Council and the House of Delegates will be reminded to report back to their component societies following their attendance at meetings of the Faculty.

Item 3 - Faculty members are expected to work through their component societies and through their representatives to Med Chi to make their views known. Also, it was noted that a general meeting is held during the Faculty's annual and semiannual sessions if a member wishes to address an issue.

Agenda Items

Maryland Health Convocation The proposed format for the Tenth Annual Convocation was reviewed. Following discussion, the Executive Committee decided to recommend to Council the approval of $2,500 in support to the Maryland Health Convocation for the year 1990.

Blue Cross/Blue Shield of Maryland - Medicare Dr. Louis C. Breschi, Chairman Committee on Specialty Societies, was present to discuss Dr. Barry S. Gold's letter regarding the revision of medical policies for the

reimbursement of GI endoscopies and noninvasive vascular testing, and also to discuss the responses received by physicians directly involved in these areas. The proposed changes and the Executive Committee's decisions are as follows:

Blue Cross/Blue Shield of Maryland/Medicare proposes the following policies and policy changes regarding noninvasive vascular testing:

1. All studies should be considered bilateral and reimbursed as one procedure.
2. Postoperative studies are not reimbursed unless the patient is symptomatic.
3. Saphenous system mapping and carotid studies done prior to CABG should not be routinely reimbursed.
4. Higher fees for color doppler studies should not be routinely paid.
5. Posterior circulation T/A studies should not be routinely reimbursed.
6. Studies for asymptomatic bruits should not be routinely reimbursed.

In its deliberations, the Executive Committee concluded that it is strongly opposed to revised policies 2, 3, 5, and 6, but neither supports nor opposes policies 1 and 4. The major concern regarding proposals 2, 3, 5, and 6 relates to denial of reimbursement for noninvasive studies that were done on asymptomatic patients. The evidence is very strong, to date, that the value of noninvasive studies is their ability to identify disease processes before they become symptomatic and at a time when they can be corrected with minimum injury to the patient. To deny this condition will deprive the patient of optimal medical care.

Blue Cross and Blue Shield of Maryland/Medicare proposes the following in regard to Gastrointestinal endoscopies:

Gastrointestinal endoscopic procedures are considered diagnostic surgical procedures that are a covered service when reasonable and necessary for the individual patient. Although primarily a diagnostic tool, endoscopy includes certain therapeutic procedures such as polypectomy, and endoscopic papillotomy, by which stones are removed from the bile duct.

The reimbursement of an endoscopy above is coverable providing it is medically necessary. Incidental biopsies and cauterizations should not be paid as separate procedures (i.e., endoscopy plus polypectomy involves unusual risk and time and thus is allowed as a separate procedure when performing any endoscopy). The unrelated surgical procedure ruling will be applied for the aforementioned.

Following discussion, the Executive Committee concluded that an additional, reasonable charge for incidental biopsy is appropriate but that an additional charge for incidental cauterization is not.

It was recommended, however, that cauterization as a part of the biopsy may be appropriate for payment under complicated, more difficult, procedural circumstances.

The Executive Committee agreed that the above opinions should be offered to Dr. Gold, with the proviso that the Committee on Specialty Societies will meet to discuss the issues further, if he wishes to do so.

Delmarva Foundation A letter of December 12, 1989 from the Delmarva Foundation regarding their proposal submitted to the HCFA on the Office-based Review Pilot Program was discussed. The Executive Committee agreed that it should be brought to the attention of Dr. Wroth, Medical Director of the Delmarva Foundation, that Med Chi supports the position of the AMA as outlined in Report K of the AMA Board of Trustees, which takes opposition to such a program being instituted.

Fee Cases - BCMS Proposal The Executive Committee discussed at length a letter from the Baltimore City Medical Society (BCMS), dated November 29, 1989, in regard to its opposition to the introduction of legislation relative to the processing of fee disputes that do not fall within the purview of the Board of Physician Quality Assurance. During the discussion, Mr. Evans recommended, and the Executive Committee concurred, that Med Chi should meet with the members of the Board to discuss their interpretation of the law before taking any action on the issue. Dr. Nagel suggested that the chairmen of the Peer Review Management Committee and the Peer Review Committee, along with members of the Executive Committee and appropriate staff, also should attend the meeting with the Board of Physician Quality Assurance.

Marilyn Goldwater A letter from Marilyn Goldwater, Director of the Office of Federal Relations, DHMH, expressing appreciation for the use of Med Chi's facilities and for staff assistance rendered during the conference held in Osler Hall on November 15, 1989 was received for information. It was reported that Ms. Goldwater had requested financial assistance from Med Chi for expenses incurred in presenting this conference. The Executive Committee voted to refer the matter to the Med-Chi Insurance Fund (Agency) with a recommendation that $300 be expended for this purpose.

Old Business

Proposed 1990 Meeting Dates The Executive Committee approved the proposed meeting dates for 1990. They are:

Thursday, April 19, 1990, 4 p.m.
Thursday, June 14, 1990, 4 p.m.
Thursday, July 19, 1990, 4 p.m.
Thursday, August 16, 1990, 4 p.m.
Thursday, December 13, 1990, 4 p.m.

Credentialing Program Dr. Victor R. Hrehorovich, Chairman, Committee on Hospital Medical Staffs, and Dr. Rafael C. Haciski, Chairman, Computers in Medicine Committee, presented a detailed, updated report on the Credentialing Program. Included in their presentation was a comparison of Med Chi's program and the proposed program by the MHA.

Springfield Hospital Dr. Hrehorovich also gave a verbal, updated report on the Springfield hospital issue. Dr. Hrehorovich pointed out that there will be no changes in the bylaws of the Springfield Medical Center and the hospital medical staff is proceeding with their suit.

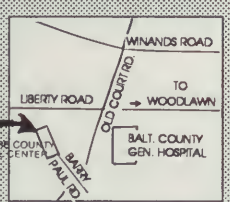
Greenspring Managed Care System, Inc. Dr. A. Carl Segal's letter of December 7, 1989 concerning Greenspring's changes in its psychiatric coverage was distributed for information. Following a brief discussion, it was decided that a letter (under Dr. Nagel's signature) be sent to the Chairman of the Med Chi Insurance Fund (Agency) requesting clarification of how the changes in Greenspring's payment for psychiatric services was affecting Med Chi's subscribers. ■

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Make Child Abuse a Memory

The case of Joel Steinberg and Hedda Nussbaum put child abuse in the headlines early last year. That tragic story was almost unbelievable in terms of who was involved and the suffering endured. But what the headlines didn't talk about are the thousands of faceless children whose lives are forever marred by the same tragedy: children who are little more than statistics in a social worker's files, in hospital records, or in police dockets.

These are the grim facts. Two hundred thousand children are physically abused each year, eight hundred thousand are neglected, and sixty thousand to one hundred thousand are sexually abused. Of the one million children who are abused each year (and the number of reported cases continues to grow every year) two thousand to five thousand will die. The statistics are frightening. But even more frightening and very upsetting is the fact that child abuse is a preventable problem. Preventable, that is, if concerned people join together to prevent it through education, awareness, and support programs.

What constitutes child abuse? Child abuse and neglect include physical, emotional, and sexual abuse as well as negligent treatment or maltreatment of a child under age eighteen by a parent or caretaker.

The AMA distinguishes between abuse and neglect in this way: child abuse includes physical abuse, such as external or internal injuries; sexual abuse as incest, molestation, or the use of children in pornography; and emotional abuse as verbal attacks or excessive demands on a child's performance. Child neglect includes physical neglect, such as abandonment, inattention to medical needs, incomplete provision of basic needs, and disregard for a child's safety; educational neglect, such as failing to enroll the child in school or permitting chronic truancy; and emotional neglect, such as inadequate nurturing or affection.

These problems do not just plague young children, they trouble adolescents as well. In fact, statistics show that adolescents make up 17 to 30 percent of the one million cases of child abuse and neglect reported in the United States each year. Half of all rape victims are under eighteen. One and one half million children and adolescents turn up missing every year. Some just run away, and others are turned out of their homes by their own parents. The abuse of adolescents also includes pornography and prostitution.

Who causes or allows these terrible problems to happen? People do. People who are often friends, neighbors, and relatives. An AMA study found that biologic parents most often are involved in child maltreatment. However, foster parents, adoptive parents, grandparents, siblings, other relatives, friends, and a host of other people who provide care for children inside and outside the home also can be involved.

Child abuse and neglect are not exclusive province of the poor. Abusers come from all economic, racial, ethnic, and religious groups. Research shows that those who abuse and neglect children are often socially isolated people with negative self-images. They also may exhibit such traits as unrealistic expectations of children and inability to cope with stress. Problems such as unemployment, marital conflict, chronic illness, alcoholism, and drug abuse may provoke a parent to abuse a child or to overlook a child's needs.

Often, people who abuse or neglect children were themselves abused or neglected when they were young. Another characteristic of abusers is that they often delay in seeking help for an injured child, and when they do, the description of how the injury occurred does not fit the medical findings.

In addition to the characteristics of abusers, research has brought to light some other factors that contribute to abuse and neglect. Child abuse and neglect occur in socially isolated families that have no external support systems, in families where husbands and wives abuse each other, in families where one parent was mistreated as a child, in families in which parental expectations are inconsistent with a child's developmental abilities, in families in which stressors such as alcohol and drug misuse, inadequate housing or overcrowding and mental illness are present. Child abuse also may occur when a child is different or has special needs; for example, illegitimate children, those born of unplanned pregnancies, those who have physical or mental handicaps, or children with chronic illnesses may be abused. Sometimes one child in a family is singled out while others live relatively normal lives.

Whatever the cause, the psychological and physical effects of abuse and neglect can be profound with some victims suffering permanent damage. Many mistreated children have problems in school or turn to crime, drug, or alcohol abuse. Some may, as adults, abuse their own children.

As grim as this picture sounds, however, the news is not all bad. The good news is that research focused on identifying parents at high risk of abuse and neglect are leading to the development of intervention and prevention programs. Among them are parenting education, programs to strengthen family units, education and awareness, and outreach programs, such as hotlines or self-help groups, that provide an outlet for the stresses of parenting.

These programs work especially well at the local level where they are easily accessible to those who need them. For example, support programs for new parents can help prepare people to be a positive influence on their children and show them how to develop loving relationships and strong attachments between themselves and their children. Educational programs can

give parents information about child development, provide skills in child care, and put them in touch with community resources. Screening and treatment programs can help identify and deal with physical and developmental problems in children as well as helping parents learn and develop well-child care skills. Child care opportunities, such as day care centers, neighborhood babysitting services, and nurseries, can help reduce the stress new parents sometimes feel. Self-help groups, such as parents anonymous and foster grandparents or parent aides, can help reduce social isolation. Family support services, such as crisis intervention centers, hotlines, and counseling for alcohol and drug abuse, can provide an outlet for parents.

Public information and education programs can create an awareness of what child abuse and neglect are, why they happen, and how they can be prevented. They can also help people understand the signs of child abuse and neglect, signs such as repeated injuries for which unlikely explanations are given; passive, withdrawn, or disruptive behavior on the part of a child; neglected appearance or a child being left alone for long periods or during evening hours.

Many people who suspect a child is being abused or neglected don't want to get involved. They know any parent can make errors in judgment that may look like abuse to people outside the family. Yet people should be encouraged to get involved by contacting one of the local service agencies that can get help for the child and family, local child protective service agencies, welfare departments or social service agencies, public health authorities, and police. Physicians, too, should be encouraged to look for the signs of suspected abuse and to report them to authorities.

There are two goals for programs to help prevent child abuse. One is to make sure that the child is safe, and the other is to resolve the family problem that brought on the abuse. These goals are at the heart of programs developed by our peers in medical auxiliaries across the nation as they work to help prevent child abuse.

Whatever you choose to do, remember that as auxiliary members of an organization committed to improving the health of the people of this nation we cannot help but become involved in programs that will help prevent child abuse. We believe that child abuse shouldn't happen, and we know that it won't stop happening until we stop it from happening.

Programs to prevent child abuse are our way of saying that we care and our way of doing our part to see that the one million children who are abused each year get a better start on life.

Let's do our part. Let's help make child abuse a memory.

(Reprint of presentation by Jeanny Kalaycioglu [Mrs. Mehmet V.] AMA Auxiliary Health Projects Committee Member. Permission granted.)

Auxiliary to the Medical and Chirurgical Faculty of Maryland. Mrs. Victoria Cameron, President; Mrs. Betty J. Molz, Editor. ■

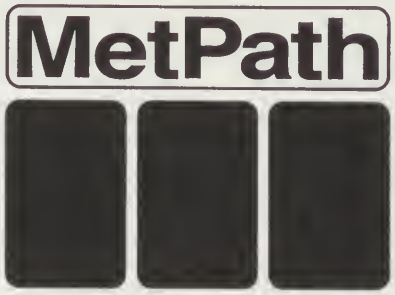
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Gastroparesis Diabeticorum

Doctor, I have been having abdominal distress and my abdomen has felt distended off and on for several months. Sometimes I have heartburn and occasionally some nausea. Other times my abdomen feels fine. The only change in my dietary habits is that I have increased the fiber in my meal plan to lower my cholesterol and to make my diabetes more stable as recommended by some newspaper articles. What is the cause of my problem? What can I do about it?

Since you have had diabetes for about twenty years and have some signs and symptoms of peripheral neuropathy it is probable that you also have some degree of visceral neuropathy. If it is present in the region of the stomach, some decrease in vagus nerve function is manifested by gastric cavity enlargement, sluggish gastric emptying, decreased motility without pyloric stenosis. This is called gastroparesis diabeticorum and is present in 20 to 30 percent of patients having long-standing diabetes. Fortunately most of the patients with this problem are asymptomatic, but it is by no means uncommon to see patients with your type of symptoms.

The diagnosis of gastroparesis diabeticorum requires exclusion of other causes of gastric function such as vagotomy, gastric malignancy, peptic ulcer, and drug-induced motility dysfunction from tranquilizers, anticholinergics, ganglion blocking agents, and tricyclic antidepressants. The usual findings on upper gastrointestinal x-ray series are sluggish, ineffectual, and irregularly occurring gastric peristalsis with delayed emptying of the contrast medium. The pylorus is widely patent, and it may be necessary for the examiner to externally compress the abdomen to force barium into the duodenum to demonstrate pyloric patency.

In your case the use of the high-fiber diet probably brought on your symptoms. Although the American Diabetes Association recommends "up to 40 grams per day of fiber particularly the soluble form of fiber found in beans, oat bran products, and fruit," patients with gastroparesis diabeticorum should avoid high-fiber diets because of the possibility of phytobezoar formation.

Treatment begins with the exclusion of other causes of abdominal distress and confirming the diagnosis of gastroparesis diabeticorum. Next begin a liquid diet with frequent small feedings to promote gastric emptying. Gradually progress to a blenderized diet and solids as tolerated. In most cases the diet can be planned with regular foods and the exchange lists within a few days.

Cholinergic agents such as bethanechol (Urecholine®) cholinesterase inhibitors such as ambenonium chloride (Mytelase®) have met with variable success, but often are associated with side effects. The most promising agent for the treatment of gastroparesis diabeticorum is metoclopramide (Reglan®), which stimulates contraction of the smooth muscle of the gastrointestinal tract. In addition, the mechanical effect of lying on the right side to promote gastric emptying has been found to give relief when abdominal discomfort is present.

Incidentally, the presence of delayed gastric emptying in this condition often has accounted for poor diabetic control and particularly episodes of hypoglycemia.

Finally, if the meal plan is to be modified at any time by a patient with diabetes, it is desirable to do it with the counseling of a dietitian to prevent such a problem as described.

DeWITT E. DeLAWTER MD
Editor ■



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PHYSICAL THERAPY & SPORTS FITNESS ASSOCIATES

Salvatore R. Donohue MD, Senior Vice-President for Medical Affairs of Maryland General Hospital, Baltimore, has been appointed by Governor William Donald Schaefer as a member of the Board of Review for the State Department of Health and Mental Hygiene. Dr. Donohue, a Board Certified Internist, is a 1964 graduate from the University of Maryland School of Medicine.

■ ■ ■

Edward F. Lewison MD, Associate Professor Emeritus of The Johns Hopkins Medical Institutions, recently received the "Humanitarian of the Year" award from the Arlene Rosenbloom Wyman Guild. Dr. Lewison, who has been Chief of the Breast Clinic of The Johns Hopkins Hospital for more than 25 years, is an Honorary Life member of the American Cancer Society, Fellow of the Royal Society of Medicine, Member of the Breast Cancer Committee of the World Health Organization, Board Member of the United Way, and a "Distinguished Citizen of the State of Maryland," conferred by the Governor.

The philanthropic Arlene Rosenbloom Wyman Guild is dedicated to providing patient care to patients with cancer at the University of Maryland Hospital, The Johns Hopkins Hospital and Oncology Center, Sinai Hospital, and Hope Lodge of the American Cancer Society.

■ ■ ■

Dan K. Morhaim MD, Chairman of the Department of Emergency Medicine at Franklin Square Hospital Center, was appointed by Governor William Donald Schaefer to the State Advisory Council on Recycling. This 16-member board will advise the Governor and State Legislature on issues of the environment and recycling. Dr. Morhaim helped formulate and implement a recycling/environmental input policy and program at Franklin Square.

■ ■ ■

St. Agnes Hospital

Recently elected officers to serve the Medical Staff of St. Agnes Hospital in 1990 are president-elect *Robert G. Hennessy MD*, Lutherville; and secretary-treasurer *Bert F. Morton MD*, Ellicott City. ■

Med Chi Members Take Note:

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Baltimore County Medical Association

At the Baltimore County Medical Association's (BCMA) Annual Meeting in January, *Esther Edery MD* was installed as President. A practicing Pediatrician in the Towson area since 1970, Dr. Edery is a member of the medical staff of St. Joseph Hospital and Greater Baltimore Medical Center. Dr. Edery is a graduate of the University of California, Berkeley, and received her medical degree from the National University of Mexico in Mexico City. She served her internship at St. Agnes Hospital and her residency at the University of Maryland Hospital.

An active member of the BCMA since 1971, Dr. Edery has served on the Board of Governors since 1984 as well as being a member of County Executive Rassmussen's Health Department Focus Group. She presently chairs the subcommittee on Maternal and Child Care Issues for that group.

At the same Annual Meeting, *Harold B. Bob MD* was installed as President-Elect of the BCMA. Dr. Bob received both his BA and MD degrees from the State University of New York at Buffalo. He did his internship and residency at Wilmington Medical Center in Delaware. Dr. Bob, a Family Practice physician, has had an office in Pikesville since 1976, is a member of the medical staff of Baltimore County General Hospital, and is a past-president of the Baltimore County General Hospital Foundation.

He has been an active member of the BCMA since 1982 and has served as Chairman of the Public Relations Committee, Moderator for the monthly TV show, "Ask the Doctor," Chairman of the Program and Bylaws Committees, a member of the Board of Governors, and Secretary and Vice-President of the BCMA. Dr. Bob is presently the Secretary of Med Chi, a member of the AMA and of the American Academy of Family Physicians.

Louis C. Breschi MD was installed as Vice-President. Dr. Breschi has been active member of the BCMA serving as Secretary, treasurer, a member of the Board of Governors, and Chairman of the Ethics Committee. Now serving as Chairman of both the Professional Ethics Committee and the Committee on Specialty Societies of Med Chi, Dr. Breschi is a Urologist on the staffs of Franklin Square Hospital Center, Good Samaritan Hospital, and St. Joseph Hospital.

Marianne Benkert MD was installed as Secretary of the Association. Dr. Benkert has served on the BCMA Board of Governors since 1986, and previously served as Chairman of the Peer Review Committee in 1986, and Chairman of the Budget, Finance and Personnel Committee, as well as Treasurer in 1989. She is a member of Med Chi's Committee for Women in Medicine and is Chairman of the Maryland Psychiatric Society's Committee for Women as well as on that Society's Peer Review Committee. Dr. Benkert is an active member of the St. Joseph Hospital Medical Staff and has a private medical practice with a specialty in psychiatry.



Esther Edery MD, President (left), receives the ceremonial cane from Benjamin V. Del Carmen MD.

Installed as Treasurer of BCMA was *Albert L. Blumberg MD*, a member of the Association, Med Chi, and the AMA since 1982. He currently serves as Chairman of the Membership and Medical Legislation Committees of BCMA and on the Board of Governors. Dr. Blumberg specializes in Radiation Oncology. A 1974 graduate from Jefferson Medical College, where he also served his internship, he did his residency in Radiation Oncology at the University of California. He is an active member of the medical staff of the Greater Baltimore Medical Center. ■

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In the Matter of Raymond F. Bayerle MD Before the Maryland Board of Physician Quality Assurance

Final Decision

Background

The Board of Physician Quality Assurance (the Board) issued charges against Raymond F. Bayerle MD (Respondent) on October 7, 1988 pursuant to its authority under Health Occupations Article, *Annotated Code of Maryland* (HO) Section 14-504. Specifically, the Board charged Respondent as follows:

(2) fraudulently or deceptively uses a license;
(3) is guilty of immoral or unprofessional conduct in the practice of medicine, and
(28) sells, prescribes, gives away, or administers drugs for illegal or illegitimate medical purposes.

The Board, on October 7, 1988, also issued as Summary Suspension of Respondent's License to Practice Medicine on the basis of its finding that the public health, safety, and welfare imperatively required emergency action in this case pursuant to Maryland State Government Code Annotated, Section 10-405 (1984).

A prehearing conference was conducted on October 27, 1988. It was determined at the prehearing conference to postpone the hearing until such time as the criminal charges pending against Respondent were resolved.

The hearing, reschedule until May 25, 1989, commenced 10 a.m.

Summary of Evidence

The following Exhibits were submitted by the Administrative Prosecutor for admission into the record. There was no objection by counsel for Respondent, and they were duly entered into the hearing file.

State Exhibit A The *Charges Under the Medical Practice Act* issued on October 7, 1988, alleging that Respondent sold prescriptions for Dilaudid to undercover officers of the Baltimore County Police Department on several occasions in September, 1988; none of the police officers had a patient-physician relationship with Respondent; and Respondent's Maryland Controlled Dangerous Substance Registration expired on June 30, 1988, prior to the issued prescriptions.
State Exhibit B The Order for Summary Suspension of License to Practice Medicine issued by the Board of Physician Quality Assurance on October 7, 1988.
State Exhibit C Warrant for Arrest and Criminal Complaint issued in Case Number 88-0049G by the United States District Court against Respondent on September 21, 1988.
State Exhibit D True Test Copy of the criminal indictment filed on September 28, 1988, against Respondent, Criminal No. HAR 88-0336.
State Exhibit E Criminal Information filed on April 21, 1989, against Respondent for Evasion of income Taxes, Criminal Number 89-0112.
State Exhibit F Undated Plea Agreement between Respondent and United States Attorney, resulting from Criminal Information 89-0112.
State Exhibit G Photocopy of State of Maryland Medical License issued to Respondent with expiration date of September 30, 1986.
State Exhibit H Photocopy of State of Maryland Medical License issued to Respondent with expiration date of September 30, 1988.
State Exhibit I Photocopy of State of Maryland Controlled Dangerous Substances registration No. M 15994 with expiration date of June 30, 1988.

Counsel for Respondent submitted the following Exhibits for admission into the record. There were no objections from the Administrative Prosecutor, and they were admitted into the hearing file.

Respondent Exhibit 1 Pretrial Evaluation for Dangerousness, dated November 23, 1988, performed by Jonas R. Rappeport MD.
Respondent Exhibit 2 Forensic Evaluation dated February 22, 1989, performed by Lee Larcade MD, and Sally Johnson MD, and Kevin J. McBride PhD pursuant to Magistrate Chasanow's Court Order of December 2, 1988.
Respondent Exhibit 3A Evaluation, dated May 1, 1989, by Joseph F. Chambers MD, of the Physicians Rehabilitation Committee of the Medical and Chirurgical Faculty of Maryland.
Respondent Exhibit 3B Results of the Minnesota Multiphasic Personality Inventory, performed April 18, 1989.
Respondent Exhibit 3C Questionnaire About Drinking Habits completed by Respondent on April 18, 1989.
Respondent Exhibit 4 Psychiatric Evaluation of Robert L. Custer MD, the treating psychiatrist for Respondent.

There were no witnesses for the State. Respondent testified in his case. Counsel stipulated as to the allegations in State Exhibit A.

By letter dated June 14, 1989, the Hearing Officer submitted a Recommended Decision including proposed Findings of Fact, proposed Conclusions of Law and Order to the parties advising the parties of the right to file exceptions under the Administrative Procedure Act. By hand delivery, on November 13, 1989, the Board informed the parties that having received no exceptions, the case would be considered by the Board at its meeting on Wednesday, December 13, 1989. By a majority vote of the full authorized membership of the Board, the Board issues the following decision.

Findings of Fact

By clear and convincing evidence, the Board finds that: Counsel for Respondent and the Administrative Prosecutor stipulated as to all of the allegations contained in the Charging Document. All findings are supported by clear and convincing evidence: the stipulations of counsel; State Exhibits A, B, C, D, E, F, G,H, and I; and the undisputed and credible testimony of the Respondent.

1. At all times relevant to the charges, Respondent was licensed to practice medicine in Maryland. State Exhibits G and H are photostatic copies of

Respondent's medical license from the State of Maryland expiring on September 30, 1986 and September 30, 1988, respectively.

2. Respondent's Maryland Controlled Dangerous Substances (CDS) Registration Number M 15994, expired June 30, 1988. See State Exhibit I, a photostatic copy of Respondent's Maryland CDS registration, which is noted to have expired on June 30, 1988. In addition, counsel for Respondent stipulated to the accuracy of the Exhibits, and Respondent did not dispute the date of the expiration of the registration.

3. Respondent sold two (2) prescriptions to an undercover Baltimore County policeman, Sergeant Robin Dewberry, for a total price of $400, on September 8, 1988.

Sergeant Dewberry was working in an undercover capacity using the assumed name of Mike Wolfe when he purchased two (2) prescriptions from Respondent for a total of $400. Respondent, while seated in the passenger seat of his 1987 Pontiac Firebird bearing Maryland Registration TBX 0056 at 6461 Red Keel Road in Columbia, MD on September 8, 1988, wrote both prescriptions in the presence of Sergeant Dewberry. The prescriptions were for Dilaudid 4 mg, #100 each in the names of Mike Wolfe and Wayne Hazel (fictitious names) (State Exhibits A, C, and E).

4. On September 12, 1988, Respondent sold a prescription for Dilaudid 4 mg, #100 in the name of Bob Morgan dated September 13, 1988, and a prescription for Dilaudid 4 mg, #100 in the name of John Miller dated September 14, 1988, to Sergeant Dewberry for $200 each.

It was stipulated by counsel for Respondent, and not denied in the testimony of Respondent, that neither "Bob Morgan" nor "John Miller" was present when Respondent wrote these prescriptions (State Exhibits A, C, and E).

5. On September 14, 1988, Respondent sold a prescription for Dilaudid 4 mg, #100 in the name of John Wright (fictitious name) dated September 15, 1988, and a prescription for Dilaudid 4 mg, #100 in the name of Mike Wolfe (fictitious name) dated September 16, 1988, to Sergeant Dewberry for $200 each.

The names in which the prescriptions were written are fictitious. Although Sergeant Dewberry, who was undercover as Mike Wolfe, was present, he was not examined by Respondent, and Respondent did not take any history from him. Sergeant Dewberry (Mike Wolfe) did not seek medical care or treatment from Respondent when Respondent wrote the prescription, and he had never had a patient-physician relationship with Respondent (State Exhibits A, C, and E).

Respondent testified he was aware that the prescriptions were not medically indicated and that they were sought for illegal purposes.

6. On September 20, 1988, Respondent sold a prescription for Dilaudid 4 mg, #100 in the name of Larry Brown dated September 21, 1988, and a prescription for Dilaudid 4 mg, #100 in the name of Greg Welsh dated September 22, 1988 to Sergeant Dewberry for $200 each.

Respondent testified that the names "Larry Brown" and "Greg Welsh" were fictitious names and that he knew this when he wrote the prescriptions. He also testified that neither "Larry Brown" nor "Greg Welsh" were present when he wrote the prescriptions and that neither had a patient-physician relationship with him.

7. Respondent wrote the prescriptions mentioned in Findings of Fact numbers 3, 4, 5, and 6, supra, after his Maryland CDS Registration expired on June 30, 1988.

State Exhibit I, a photostatic copy of Respondent's controlled Dangerous Substances registration, No. M 15994, substantiates that Respondent's CDS registration expired on June 30, 1988. Counsel for Respondent stipulated to the accuracy of the Exhibit, and Respondent did not dispute it in his testimony. The above Findings of Fact, which have been substantiated by both stipulation from counsel for Respondent and the testimony of the Respondent, corroborate that Respondent wrote prescriptions for Dilaudid, a Schedule II controlled dangerous substance that may only be prescribed by a practitioner with a valid Maryland CDS Registration and a valid United States DEA Registration.

8. Respondent unlawfully prescribed controlled dangerous substances outside the course of his regular professional duties and not in conformance with the provisions of Article 27 Section 288(c), Subtitle Health-Controlled Dangerous Substances, *Annotated Code of Maryland*, and outside the standards of his particular profession relating to controlled dangerous substances.

Counsel for Respondent stipulated to the veracity of the allegations contained in the Charging Document, and Respondent, in his testimony, admitted to the fact that he unlawfully prescribed controlled dangerous substances outside the course of his regular professional duties and outside of the standards of his profession relating to controlled dangerous substances.

Respondent testified that he knew the prescriptions he wrote for Dilaudid (See Findings of Fact 3, 4, 5, and 6 supra) were issued outside of the scope of his professional responsibilities. Respondent stated that he knew, or should have known, that the persons requesting the prescriptions did not medically require the prescriptions he issued for controlled dangerous substances, and he knew that he was writing prescriptions for fictitious persons and/or persons with whom he had no patient-physician relationship.

Conclusions of Law

On the basis of the Findings of Fact, all of which are supported by clear and convincing evidence, the Board concludes that Respondent has violated:

1. Section 14-504(a)(2) of the Medical Practice Act, Title 14, Health Occupations Article, *Annotated Code*

of Maryland, by having fraudulently or deceptively used his medical license for the purpose of unlawfully prescribing controlled dangerous substances;

2. Section 14-504(a)(3) of the Medical Practice Act, Title 14, Health Occupations Article, *Annotated code of Maryland*, by having been guilty of immoral or unprofessional conduct in the practice of medicine; and

3. Section 14-504(a)(28) of the Medical Practice Act, Title 14, Health Occupations Article, *Annotated code of Maryland*, by having sold, prescribed, given away, or administered drugs for illegal or illegitimate medical purposes.

Order

Based upon the foregoing Findings of Fact and Conclusions of Law, pursuant to Health Occupations Article, Section 14-504, it is the 18th day of December 1989, by the Board of Physician Quality Assurance:

ORDERED that Respondent's medical license No. D 18844 be REVOKED; and be it further

ORDERED that this is a final order.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

■ ■ ■

In the Matter of
Samuel R. Lewis MD
Before the
Maryland Board of
Physician Quality Assurance

Monday
August 14, 1989

HAND DELIVERED
Samuel R. Lewis MD
11102 Hudee Court
Mitcheleville, MD 20716

Re: Surrender of License
License Number D 06599
Case Number 89-00735

Dear Mr. Lewis:

Please be advised that the Board of Physician Quality Assurance (the "Board") has been advised that as part of your plea agreement in *State of Maryland v. Samuel Lewis MD*, circuit Court for Baltimore City, Criminal Number 28913017, on May 12, 1989, you agreed to surrender your license, see attachment of the docket entries, Order of Probation, Statement of Facts Under Health Occupations Article §14-508(a) unless the Board agrees to accept the surrender of a license, a licensed physician may not surrender the license while the licensee under investigation or charges are pending. Section §14-508(b) provides that the board may set conditions on its agreement with the physician under investigation or against whom charges are pending to accept surrender of the physician's license. The Board has discussed the surrender of your license and agrees to accept the surrender of your license under the following conditions.

The surrender of your license will be reported to the Federation of State Medical Boards, the Medical and Chirurgical Faculty, the Maryland Hospital Association, and other relevant agencies. You cannot give medical advice to any individual, for compensation or otherwise, and cannot prescribe medication. In other words, your surrender of your license means that you are in the same position as an unlicensed individual. This letter accepting your surrender of your license will be treated as a public document under the Public Information Act, State Government Article, Sections 10-611 through 10-630, *Annotated Code of Maryland*, and will be considered a final order by the Board.

The Board also conditions the acceptance of the surrender of your license on your surrendering:

1) All documents from the Federal Food and Drug Administration (FDA), the Federal Drug Enforcement Administration (DEA), the Maryland Division of Drug Control, or comparable Division in any other state or country which evidence or gives license to prescribe controlled dangerous substances.

2) All privileges at any hospitals where you had privileges;

3) All prescription pads bearing your name for destruction;

4) All medical licenses in other jurisdictions in which you have a license;

Further you must explain to the Board the arrangements you have made for transferring your patients to another physician. You should have explained to your patients that you are surrendering your license, giving the patients the name of the physician to whom you are turning over your practice. The patients should be given the option of continuing with this physician or selecting another. You must explain to your patients how they can arrange to have their medical records transferred if they so choose. You may wish to contact Michael A. Murray, Director of Operations, at the Medical and Chirurgical Faculty for guidance. The faculty has developed some letters you may find helpful.

Finally, in accepting the of surrender of your license to practice medicine, the Board will entertain a petition for reinstatement of your license in three (3) years. If you apply for reinstatement of your license you will bear the burden of proving to the Board not only that you complied with the terms of your court-ordered probations but also that you are of present good moral character and that you are presently competent to practice medicine. The Board will require that you take either the National Boards, the Flex Examinations, the SPEX examination or be evaluated by the McMasters program in Canada or a similar program.

You would bear the cost of any such examination or evaluation. In other words when you apply for reinstatement of your license you must demonstrate that you have the character and the cognitive and clinical competence to practice medicine in Maryland.

Under these conditions on behalf of the Board of Physician Quality Assurance, on this 3rd day of July 1989, I accept Samuel R. Lewis' surrender of license to practice medicine in Maryland, Number D 06599. As a result of this acceptance of the surrender of your license, no charges based on Case Number 28913017, referenced above, will be filed against you.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

■ ■ ■

In the Matter of
Angelita Topacio MD
Before the
Maryland Board of
Physician Quality Assurance

Consent Order

On August 30, 1989 the State Board of Physician Quality Assurance* (the Board) charged Angelita Topacio MD (the Respondent) with Violation of Conditions of the Final Order of April 10, 1984 issued by the Commission on Medical Discipline (the Commission). Specifically, the Board charged Respondent with violation of Condition 3 which states as follows:

> That Respondent practice fully in accordance with those standards expected of a competent practitioner of medicine in the State of Maryland.

On October 4, 1989 a settlement conference was held.

As a result of negotiations entered into during the settlement conference, Respondent agreed to the following Consent Order.

Findings of Fact

1. At all times relevant to this Order, Respondent was and is currently licensed to practice medicine in Maryland.

2. On April 10, 1984 the Commission found that Respondent violated §14-504(6) of the Maryland Medical Practice Act, Md. Health Occ. Code Ann. (1981). The Commission ordered that Respondent's license to practice medicine in the State of Maryland be SUSPENDED: the suspension was immediately STAYED. Respondent was placed on probation subject to certain terms and conditions as set forth in the Findings of Fact, Conclusions of Law, and Order (the "Final Order") attached hereto and incorporated herein as Exhibit A.

3. Pursuant to the Final Order, Condition 3 required Respondent to practice fully in accordance with those standards expected of a competent practitioner of medicine in the State of Maryland.

4. On or about July 1, 1984 the State of Maryland Department of Health and Mental Hygiene, Division of Drug Control (DDC) issued Respondent Controlled Dangerous Substances (CDS) Registration Number M13708, which expired June 30, 1985.

5. On December 3, 1984 the United States Department of Justice, Drug Enforcement Administration (DEA) issued Respondent Controlled Substances Registration Certificate Number AT919115, which expired November 30, 1985. Respondent has maintained her DEA Registration continuously since December 3, 1984. Respondent's current DEA Registration expires November 30, 1989.

6. On December 1, 1987 DDC issued Respondent a CDS Registration, which expired June 30, 1988. on July 1, 1988, DDC issued Respondent a CDS Registration which expires June 30, 1990.

7. On May 12, 1989, in the *State of Maryland; v. Angelita Topacio*, in the Circuit Court for Baltimore City, Respondent pleaded guilty to knowingly and willfully prescribing drugs in violation of the standards of her profession relating to controlled dangerous substances in violation of Article 27, §288(c) Annotated Code of Maryland arising from her failure to maintain a Maryland Controlled Dangerous Substances Registration as required by the Department of Health and Mental Hygiene.

8. On May 12, 1989, the Honorable Roger Brown found Respondent guilty of the offense described in paragraph 7 above and sentenced Respondent to one (1) year suspended sentence; three (3) years unsupervised probation; $5,000 fine; $115 court costs; and $763.78 restitution to the Medical Care Compliance Administration.

9. Respondent was practicing in violation of Condition 3 of the Final Order because Respondent failed to maintain a Maryland CDS Registration from July 1, 1985 to November 30, 1987.

Conclusions of Law

Based on the Findings of Fact, the Board, concludes as a matter of law that Respondent violated Condition 3 of the final Order and finds Respondent guilty of failing to practice fully in accordance with those standards expected of a competent practitioner of medicine in the State of Maryland.

* The 1988 General Assembly, by Senate Bill No. 508 and House Bill No. 855, merged the functions of the former Commission on Medical Discipline and the former Board of Medical Examiners into the new Board of Physician Quality Assurance.

Order

Based on the foregoing Findings of Fact and Conclusions of Law, it is this 6th day of November 1989,

ORDERED that Angelita Topacio MD, a physician licensed to practice medicine in Maryland is hereby released from the probation imposed in the Final Order of April 10, 1984; and it is further

ORDERED that Angelita Topacio MD, is placed on PROBATION subject to the following terms and conditions:

1. That Respondent shall practice fully in accordance with those standards expected of a competent practitioner of medicine in the State of Maryland;
2. That one (1) year from the date of this Order the Board will entertain a petition for termination of Respondent's probationary status if Respondent demonstrates to the satisfaction of the Board that she had complied with the terms and conditions of her probation;
3. The Board may order a peer review at any time during Respondent's probation. The Board may appoint a peer review committee to conduct the peer review or the Board may perform the peer review itself. The Board or peer review committee has complete discretion to select which office and hospital medical records it chooses to review. Respondent shall bear any administrative costs associated with the peer review. If the Board appoints a peer review committee, the committee shall prepare a report for the Board; and
4. If any complaints are received by the Board during the time Respondent is on probation, the Board may appoint a peer review committee to conduct a peer review of Respondent's practice as described in paragraph 3 above; and be it further

ORDERED that Respondent shall practice medicine and surgery in accordance with the Maryland Medical Practice Act, Md. Health Occ. Code Ann. §14-101 *et seq.* (1988 Cum. Supp.); and be it further

ORDERED that if Respondent violates any of the foregoing conditions of probation, the Board, after notification, a hearing, and determination of the violation by a preponderance of the evidence, may impose any disciplinary sanctions it deems appropriate.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

Consent

By this Consent, I hereby accept and agree to be bound by the foregoing Order and its conditions and restriction, consisting of eight pages.

1. By signing this Consent, I hereby submit to this Order and its conditions. I acknowledge the Board's jurisdiction and the validity of this Order as if made after a hearing at which I would have had the right to counsel, to confront witnesses, to give testimony, to call witnesses on my own behalf, and to all other substantive and procedural protections provided by law. I also recognize that I am waiving my right to appeal any adverse ruling of the Board that might have followed any such hearing. By this consent, I waive all such rights.
2. I understand that if I fail to comply with the conditions enumerated above, I may suffer disciplinary action against my license to practice medicine in the State of Maryland.
3. I sign and consent to this Order after having an opportunity to consult with counsel and with full understanding of the meaning and terms of the Order.

ANGELITA TOPACIO MD

EXHIBIT A

In the Matter of
Angelita Topacio MD
Before the
Maryland Commission on
Medical Discipline

Findings of Fact, Conclusions of Law, and Order

Based on information coming to its attention, the Commission on Medical Discipline of Maryland (the Commission) conducted an investigation and subsequently determined to charge Angelita Topacio MD (Respondent) with violation of the Maryland Medical Practice Act, Health Occupations Article, Maryland Code Annotated, §14-504(6), as follows:

> Is convicted of or pleads guilty or nolo contendere with respect to a crime involving moral turpitude....

Respondent was notified of the charges by letter dated December 27, 1983. A hearing was scheduled for May 1, 1984. On March 13, 1984, a prehearing conference was held. As a result of discussions and negotiations at the prehearing conference, Respondent agreed to enter into the following Consent Order.

Findings of Fact

Based on information in its files, and otherwise made known to it, the Commission finds:

1. That Respondent, Angelita Topacio MD, is a physician licensed and practicing in Maryland currently and at all times material to the allegations relating to the above matter.
2. That on February 4, 1982 Respondent pled guilty to counts of false pretenses, theft, and willful concealment and alteration of medical records in the Criminal Court of Baltimore City.
3. That the charges to which Respondent pled guilty were based upon her intentionally submitting to the Maryland Medical Assistance Program (Medicaid) false invoices for alleged consultation services rather than routine office visits, which latter services Respondent had provided to Medicaid recipients.
4. That said charges related to crimes of moral turpitude.
5. That on March 10, 1982 Respondent was granted probation before judgment by the Criminal Court of Baltimore City, and was fined $4,000, was placed on supervised probation for three years from the date of said disposition, was required to make restitution of $2,729 to Medicaid, and was required to perform 200 hours of community medical service without pay.
6. That Respondent presently is in compliance with the Scheduled performance of the Terms and conditions ordered by the Criminal Court of Baltimore City in the above matter.

Conclusion of Law

Based on the foregoing Findings of Fact, the Maryland Commission on Medical Discipline, by unanimous vote of those members considering the above case, concludes as a matter of law that Respondent violated §14-504(6) of the Maryland Medical Practice Act, Health Occupations Article, Maryland Code Annotated, and finds Respondent GUILTY of that charge.

Order

Based on the foregoing Findings of Fact and Conclusion of Law, it is this 10th day of April 1984, by unanimous vote of those members of the Maryland Commission on Medical Discipline considering the above case,

ORDERED that the license of Respondent, Angelita Topacio MD, an individual licensed to practice medicine in Maryland, is hereby SUSPENDED; and be it further

ORDERED that the suspension of Respondent's license shall be immediately STAYED and Respondent placed on PROBATION subject to the following terms and conditions:

1. That Respondent shall not engage in activities of the type that led to her criminal conviction;

2. That Respondent fully perform and satisfy all terms and conditions of her probation as ordered by the Criminal Court of Baltimore City; and,

3. That Respondent practice fully in accordance with those standards expected of a competent practitioner of medicine in the State of Maryland; and be it further

ORDERED that two (2) years from the date of this Order the Commission will entertain a petition for termination of Respondent's probationary status and for restoration of her license to practice medicine without condition or restriction, upon Respondent's demonstrating to the satisfaction of the Commission that she has complied with the terms and conditions of her probation. If the Commission determines that she has not complied with the terms and conditions of her probation, the Commission may modify one or more of the conditions of her probation; and be it further

ORDERED that if Respondent violates any of the foregoing conditions of probation, the Commission, after notification, a hearing, and determination of violation, may impose any disciplinary sanctions it deems appropriate.

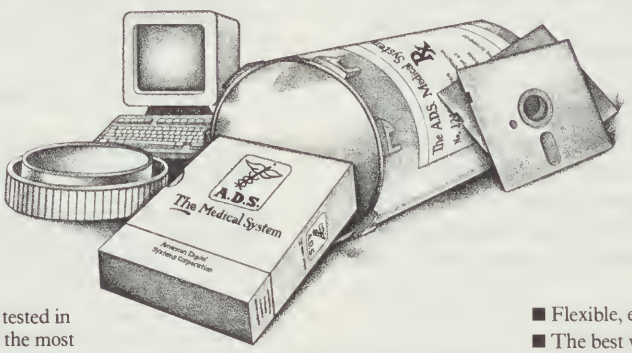
HILARY O'HERLIHY MD, Chairman
Maryland Commission on Medical Discipline

Consent

By this Consent, I hereby admit the truth of the Findings of Fact and accept and submit to the foregoing Order and its conditions. I have read and acknowledge the validity of the Order as if made after a hearing in which I would have had the right to counsel, to confront witnesses, to give testimony, to call witnesses on my behalf, and to all other substantive and procedural protections provided by law. I also recognize that I am waiving my right to appeal any adverse ruling of the Commission that might have followed any such hearing. By this Consent I understand that I am waiving all such rights. I sign this Consent without reservation and after conferring with counsel and I fully understand its meaning.

ANGELITA TOPACIO MD ■

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■ ■ ■

Lupus Fellowships

The Lupus Foundation of America, Inc. announced recently that the Gina Finzi Memorial Student Summer Fellowships again will be offered to assist in promoting research related to systemic lupus erythematosus. Nationwide, ten stipends of $1,500 each will be provided to undergraduate, graduate, postdoctoral, medical, or doctoral students to conduct basic or clinical research under the supervision of an established investigator.

Locally, applications are available through the Maryland Lupus Foundation office located at 12 West 25th Street, Baltimore. Deadline for completed applications is April 1, 1990 with awards made in June 1990.

All applications will be reviewed NIH-type and ranked by members of the Lupus Foundation of America Medical Council Research Committee and independent reviewers representing areas of expertise relevant to the project.

Sergio Finzi PhD, former president of the Lupus Foundation, Inc., established the fellowship program ten years ago in memory of his daughter who died of lupus.

For more information on the Gina Finzi Memorial Student Summer Fellowship Program contact the Maryland Lupus Foundation, Inc. at 301-366-7272 or the Lupus Foundation of America, Inc. at 202-328-4550. ■

***The History of Medicine Collection** has duplicate copies of the Maryland Medical Journal from the 1970's and the 1980's. These copies are available on a "First come - First served" basis.*

Med Chi Presents Awards to Governor Schaefer



Med Chi President-Elect Reynaldo Lee-Llacer MD; Executive Director, Angelo J. Troisi, FACHE; and Med Chi Lobbyist, Gerard E. Evans present the AMA Dr. Nathan Davis award and picture to Maryland Governor William Donald Schaefer.

Med Chi President-Elect Reynaldo Lee-Llacer MD, along with Med Chi Executive Director Angelo Troisi and Lobbyist Gerry Evans, officially presented the first American Medical Association Dr. Nathan Davis Award for Outstanding Public Service to Governor William Donald Schaefer during a ceremony at the Maryland Statehouse in January.

The award, an engraved Stuben glass bowl, was to have been presented to the Governor during an AMA awards ceremony in October 1989, but the final engravings were not complete. Rather than mail the award, Med Chi presented it to Governor Scaefer at an official ceremony along with a framed photograph. Beneath the photograph was the following inscription:

American Medical Association Honors William Donald Schaefer Governor as Most Outstanding Governor in United States in 1989

Governor William Donald Schaefer, nominated by the Medical and Chirurgical Faculty of Maryland, received the First Annual Dr. Nathan Davis Award for Outstanding Public Service in October 1989. The AMA initiated the Dr. Nathan Davis Award, named after the founder of the AMA, to recognize contributions by public servants promoting the art and science of medicine and the betterment of public health. It is appropriate that Governor Schaefer, Maryland's most preeminent public servant, receives this distinguished award because the concept of a Federation of State Medical Societies (the AMA) originated at the 1848 Annual Meeting of the Faculty. Med Chi nominated Governor Schaefer for this award because of his consistent actions as an outstanding advocate of Maryland citizens in promoting quality health care.

-Presented by the Medical & Chirurgical Faculty, January 1990.

Upon receipt of the AMA award, the Governor proclaimed, "The physicians in Maryland are the best physicians in the United States."

Governor Schaefer, the first gubernatorial recipient of the award, was honored among other notable public figures including former Surgeon General C. Everett Koop MD, California Representative Henry Waxman, and Former Senator Lowell Weicker from Connecticut.

More Awards

Following the presentation of the AMA award, Henry P. Laughlin MD made the Governor an honorary member of CAMPER (Catoctin Area Mountain Park Environmental Resource) and presented him with the organization's official belt buckle and a cap. Governor Schaefer is one of only two governors in the country to be honored with this membership. Dr. Laughlin is completing a third term as President of CAMPER, an organization with over 300 members that serves as the volunteer support group for the Catoctin Mountain Park, an important unit of the US Park Service since the 1930s and the site of Camp David. ■



CAMPER President Henry P. Laughlin MD presents Governor Schaefer with a belt buckle and cap.

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Brothers Beyond Blood: A Battalion Surgeon in the South Pacific. George Sharpe MD. Austin, TX: Diamond Books, 1989, 274pp.

This is a recent, well-written, and vivid autobiographical account of the World War II experiences of a US Army battalion surgeon, who served admirably from 1942 to 1946. It will interest most of our fellow physicians as well as all combat veterans of our recent conflicts, their families, and all who care about history. The author's invaluable account is especially gripping and poignant for those of us who survived our own wartime experiences in the South Pacific theatre of operations.

Dr. Sharpe begins with brief references to his early stateside duties and later occasionally ties these in with his subsequent experiences to illustrate how they provided some preparation or lack thereof. The careful preservation of daily letters from overseas to his wife Alison provided ample detailed data to thoroughly mobilize his recollections and to ensure an accurate chronology of events. At various intervals in his account examples of letters are quoted in full or even in sequence, exactly as written.

Following assignment to the 608th Clearing Company and embarkation on March 22, 1944 from Camp Stoneman and San Francisco on *The Hawaiian Shipper*, unescorted for a four-week voyage into the western Pacific, Dr. Sharpe arrived at Milne Bay, New Guinea. His friend from medical school days, Jerry Soloman, was a close companion then and later, until his tragic death in September from *tsutsugamushi* fever (Japanese scrub typhus: a rodent-carried, mite-bite transmitted rickettsial illness then with up to 10 percent or higher mortality). Both had endured bouts with dengue (breakbone fever: a mosquito borne, viral, debilitating disease, with ordinarily near zero mortality), and the author also suffered for nearly two years from occasional recurrent but long-undiagnosed malarial episodes.

Disease, injuries, and combat casualties as well as personal relationships in several combat areas in New Guinea are carefully described. Enemy behavior receives intermittent comment throughout, and Sharpe includes intriguing observations about the indigenous peoples both there and later on in Luzon, Philippine Islands. One secures a keener appreciation of the continuing problems occasioned by separation from the spouse and family. Interspersed are useful and timely references to concurrent global ware events.

The author's wartime experiences in New Guinea ended December 29, 1944 upon embarkation to join the Lingayen Gulf, Philippine Islands invasion force, serving as surgeon of the 2nd Battalion, 20th Infantry Division. Landing on January 9, 1945 was followed by nearly continuous combat in Luzon until word of the Japanese surrender was received on August 10, 1945; one stretch of 112 days set the record for the Pacific Theatre. This account is remarkably candid in its description of the assets and foibles of many individual coparticipants. Dr. Sharpe calls them as he sees them. He is commendably confiding about his own feelings, which as would be expected, run the gamut of emotional experience. Wounds, injuries, illness, and death including another close friend in battle provide a myriad of medical and personal events, all of which have impact. As hostilities wind down, the point system devised for return to the states and/or discharge was of no benefit to the author or to those of us in other branches of service who similarly held regular commissions.

As a powerful and factual account of wartime medical adventures, it is a pleasure to highly recommend our Kensington colleague, Dr. Sharpe's excellent narrative to our other Maryland physicians, as well to anyone who has an interest in this significant area of our recent history. As the reader will discern, Dr. Sharp's attitude toward his fellow man enters into his careful choice of a title.

HENRY P. LAUGHLIN MD
Associate Editor ■

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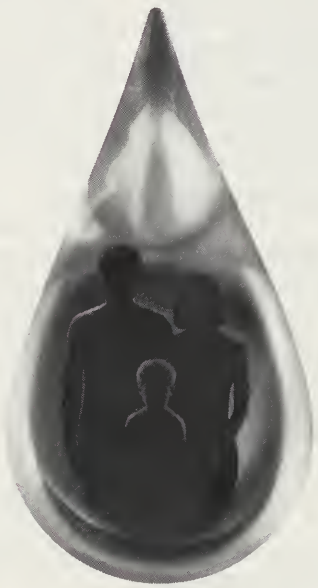
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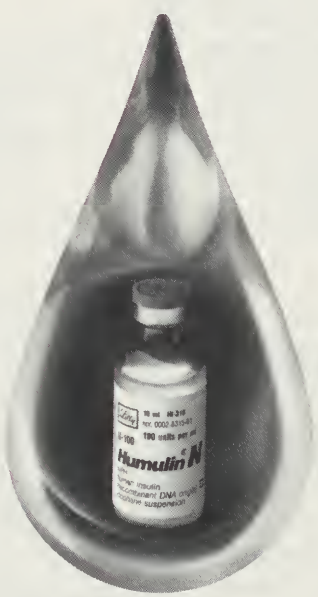
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MISCELLANEOUS MEETINGS

April 6	**Clozaril (clozapine): Clinical Use and Patient Management**, cosponsored by The Sheppard Pratt National Center for Human Development and Sandoz Pharmaceuticals Corp. Location: The Sheppard Pratt National Center for Human Development, 6501 N. Charles St., Baltimore MD 21285. Info: 1-800-627-0550.
April 19-21	**Annual Meeting, The Virginia Society of Otolaryngology-HNS**, Radisson Mark Plaza Hotel, Alexandria, VA. Info: D. Scott 804-353-2721.
May 2-4	**Cardiovascular Health Styles: Energizing for the 90s.** The Seventh Regions II and III Cardiovascular Risk Reduction Conference, Hershey Hotel, Philadelphia, PA. Info: D. Fedder DrPH 301-328-7613, FAX 301-328-7184; R. Ranberg 717-787-7073.
May 2-5	**American Trauma Society Seventeenth Annual Meeting**, Holiday Inn Crowne Plaza, Washington, DC. Info: Meeting Coordinator American Trauma Society, 1400 Mercantile Lane - Ste 188, Landover, MD 20785 (800-556-7890 or 301-925-8811).
May 9-11	**Clinical Auscultation of the Heart**, Georgetown University Medical Center, Washington, DC, sponsored by the American College of Cardiology and the Division of Cardiology, Department of Medicine, Georgetown University School of Medicine. Info: Registration Secretary, Extramural Program Dept, American College of Cardiology, 9111 Old Georgetown Rd., Bethesda, MD 20814 (800-253-4636 or 301-897-54090 ext 226).
June 4-8	**EVMS Family Medicine Review Course - Sixth Edition**, sponsored by the Department of Family and Community Medicine of the Eastern Virginia Medical School; Sheraton Beach Inn at Virginia Beach, VA. Info: 804-446-6140.
June 22-24	**Annual Meeting, The Virginia Society of Ophthalmology**, Omni International Hotel, Norfolk, VA. Info: D. Scott 804-353-2721.

Shady Grove Adventist Hospital, 9901 Medical Center Drive, Rockville, MD. Info: 301-279-6000.

April 5	Medical Care in Space
April 12	Echocardiography and Color Flow Doppler
April 19	Noncardiac Chest Pain
April 26	Advances in Gynecologic Surgery
May 3	Polymyalgia Rheumatica and Temporal Arteritis
May 10	Postmastectomy Breast Reconstruction
May 17	The Food and Drug Administration - Your Friend or Foe?
May 24	Growth Factors to Improve Low Blood Counts
May 31	Update on Right-to-Die Issues

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April 4

Third Annual Martin Helrich Lecture, sponsored by the Department of Anesthesiology; Davidge Hall, Lombard and Greene Streets. Reception 4 p.m., lecture 5 p.m. Info: Dr. B.K. Mokriski, Chairperson, Resident Education Committee 301-328-6120.

April 26

Dean's Conference #7: Advances in Endocrinology, UMAB Campus, Baltimore. Fee: $35; 5.5 AMA & AAFP credits.

April 27

A Workshop Symposium in Effective Therapy, UMAB Campus. Fees and credits to be determined.

June 14-17

Third Annual Trauma Anesthesia and Critical Care Symposium. Pre-symposium workshops on ATLS, ACLS, ABLS, APLS, and CRNAs also will be held. Info: MIEMSS Office of International Development, 11 S. Paca St., Ste 303, Baltimore, MD 21201 (301-328-2399).

June 24-29

Sixteenth Annual Family Medicine Review Course, Carousel Hotel, Ocean City, MD. Fee: $395; 20+ AMA and AAFP credits.

June 28-29

Ninth Annual Update in Obstetrics and Gynecology, Annapolis. Fee: $200; 14 AMA credits and ACOG cognates.

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Advanced Trauma Life Support Provider/Instructor Programs sponsored by University of Maryland/MIEMSS. Info: M. Nelson 301-328-2919.

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August 16-17 Provider
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October 18-19 Provider
November 15-16 Provider
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April 2-7

Seventeenth Annual Pediatric Trends. Fee: $550 physicians, $400 residents and fellows; 45 AMA Cat I and 45 PREP credits. Info: F. Boling 301-955-2959.

April 19-20

J. Donald Woodruff Symposium 1990: Provocative Topics in Gynecologic Oncology AND April 21 The Seventh Annual Houston Everett Memorial Course in Urogynecology, Harrison's Pier 5 Clarion Inn, Baltimore. Fee: three-days (April 19-21) physicians $440, residents & fellows* $280; two-days (April 19-20) physicians $320, residents & fellows* $200; one-day (April 21) physicians $120, residents & fellows* $80 (*with letter from department chairperson verifying status). Credits: two-day session 14.25 AMA Cat I credits, 14 cognates; one-day session 6.75 AMA Cat I credits, 8 cognates. Info: 301-955-2959.

May 14-18

Topics in Clinical Medicine. Fee: $650 physicians, $450 residents/PAs, and nurse practitioners; 40 AMA Cat I credits. Info: C. Kearney 301-955-2959.

June 4-15

Third Summer Institute in Environmental Health Studies. Subjects include Risk Assessment & Risk Management, Toxicology, Physiology, Occupational Health, Industrial Hygiene, Radiation Health Science, and Risk Communication. Academic or CEU credit. Info: J. Corn 301-955-2609.

June 20-23

Second Baltimore Perinatal Colloquium, sponsored by the Department of Gynecology and Obstetrics, Divisions of Maternal-Fetal Medicine, The Johns Hopkins University School of Medicine and The University of Maryland School of Medicine. Fee: physicians $450, residents $250 (with letter from department chairperson verifying status); 24 AMA cat I credits, ACOG cognates available. Info: 301-955-2959.

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The Department of Radiology and Radiological Sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams 301-955-3169.

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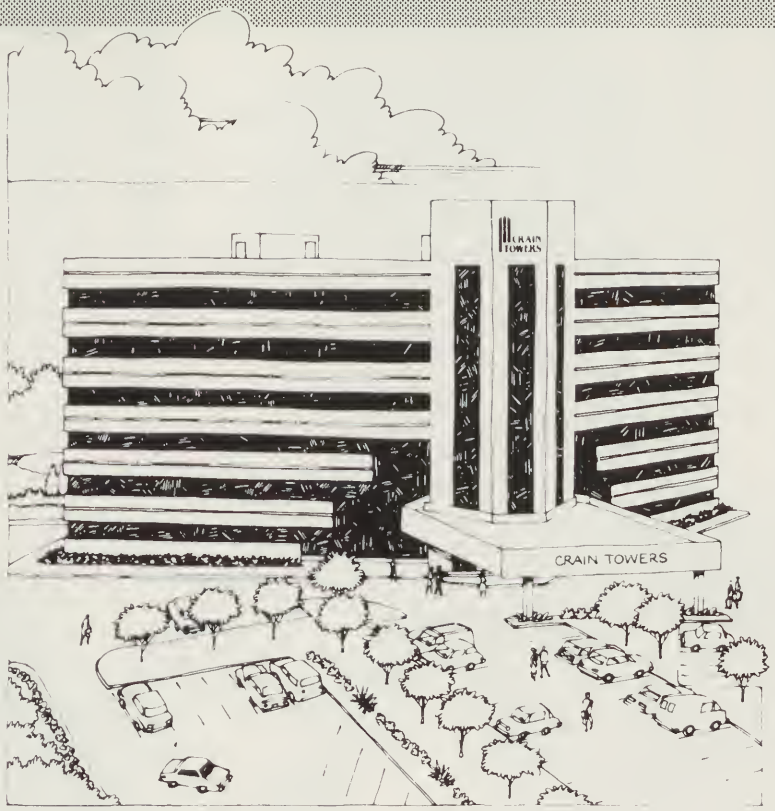
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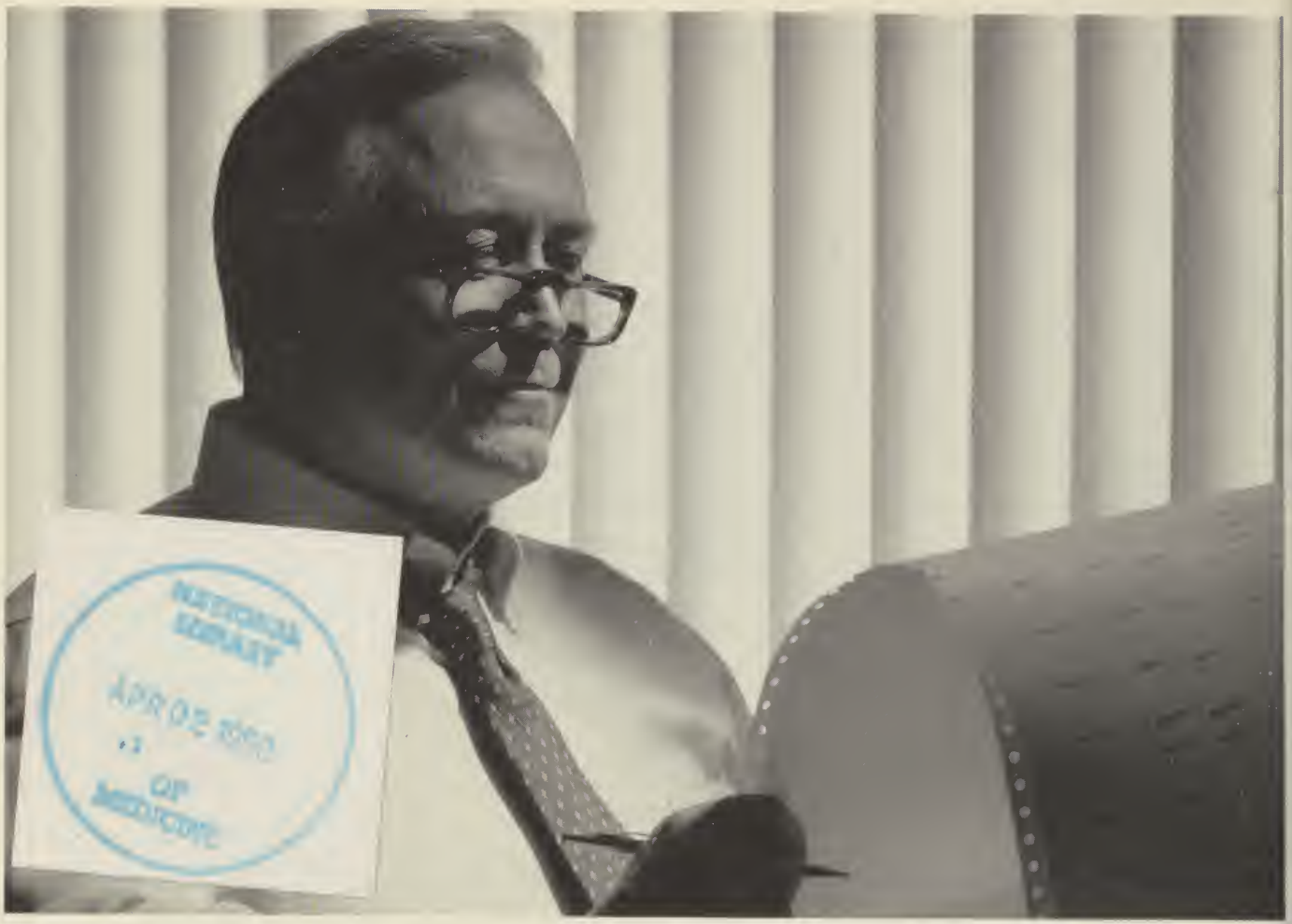
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Maryland Medical Journal

MAY 1990

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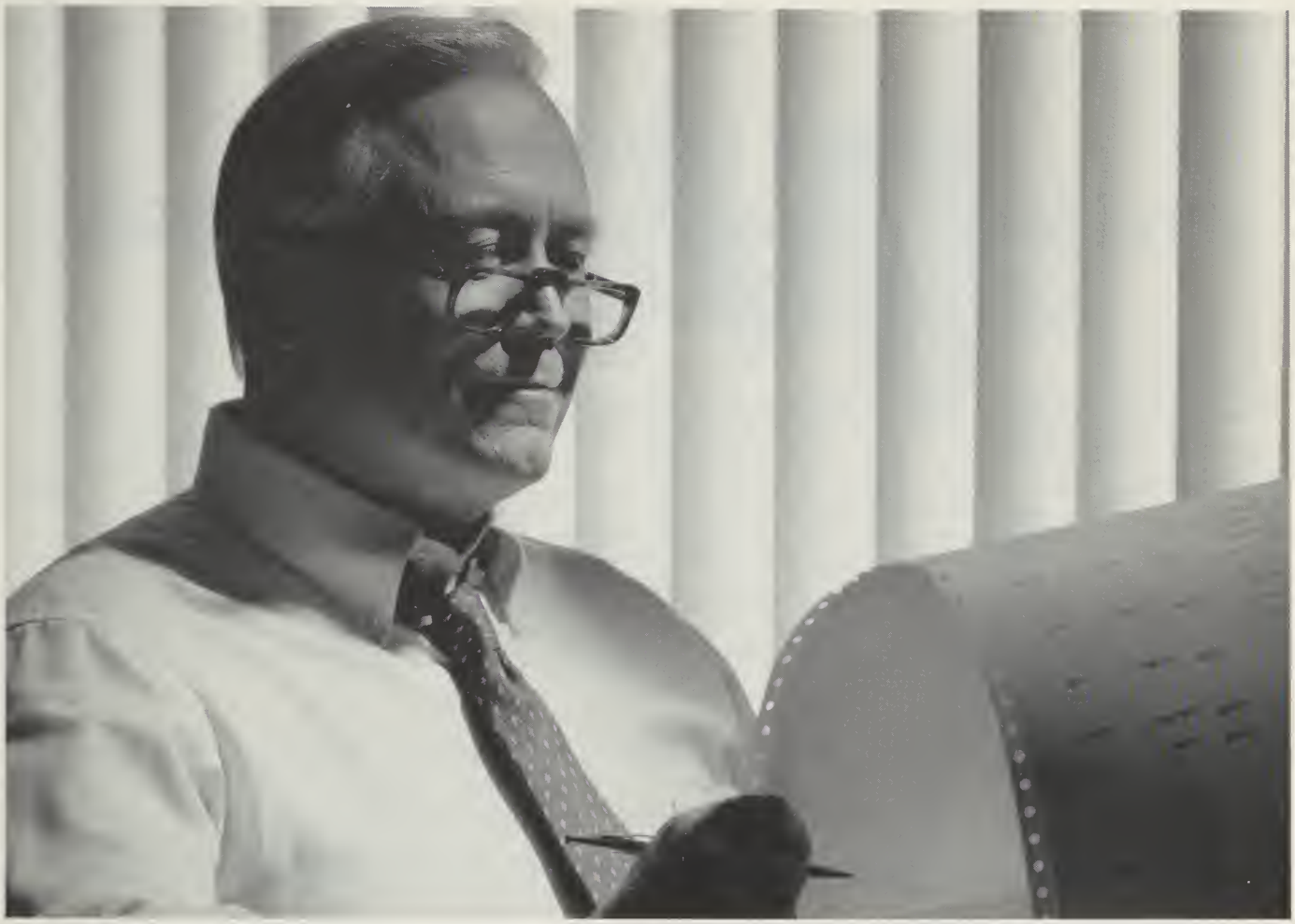
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Information for Authors

Manuscripts may be sent to Editor, *MMJ*, 1211 Cathedral St., Baltimore, MD 21201. Articles are accepted for publication on the condition that they are contributed solely to this journal. Transmittal letters should designate one author as correspondent and include his/her address and telephone number. Manuscripts are reviewed by editorial board members and guest reviewers.

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Include full name of author(s) with highest degree, academic and professional titles, affiliations, and any institutional or other credits.

Tables with brief descriptive titles are to be typed on separate sheets of paper and numbered. The Editor reserves the right to edit tables. Statistics must be consistent in both tables and text.

References are limited to those citations noted in the text and are to be typed double spaced and numbered consecutively as they appear in text. The number of references generally is limited to 20 in major contributions and fewer in shorter articles. Personal communications and unpublished data should not be included.

Photographic material must be submitted as high-contrast glossy prints. Drawings and graphs must be of professional quality. Four or fewer illustrations should be adequate for a manuscript of 4 or 5 typed pages. Recognizable photos of patients are to be masked and should carry with them written permission for publication.

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THERAPY THAT MAY BE AS SILENT AS HYPERTENSION ITSELF

VASOTEC is generally well tolerated and not characterized by certain undesirable effects associated with selected agents in other antihypertensive classes.

VASOTEC is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

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For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

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VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASDTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASDTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for disconfinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions.*)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy – Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASDTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASDTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); pulmonary embolism and infarction; pulmonary edema, rhythm disturbances; atrial fibrillation; palpitation.

Digestive: Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and OOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, anosmia, finnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASDTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of ahemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

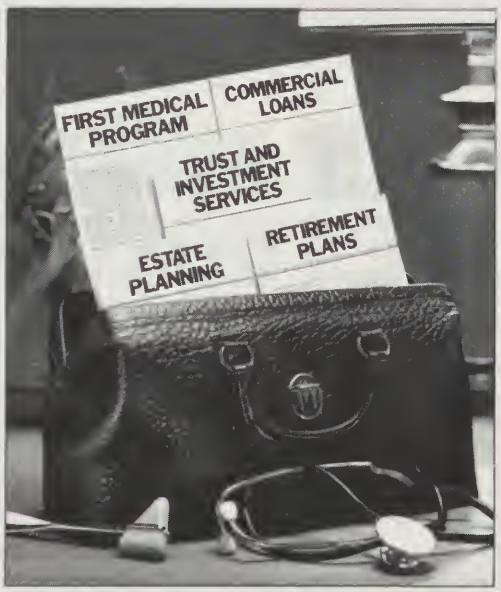
Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starfing dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIDNS, *Drug Interactions.*) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent carefut dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects.*) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia: In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure,* WARNINGS, and PRECAUTIONS, *Drug Interactions.*) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486. J9VS61R2(819)

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Chronic Fatigue Syndrome
May 1990

The information presented below is from "The Chronic Fatigue Syndrome: An Information Pamphlet produced by the Centers for Disease Control, January 1990"

Summary

Various studies of chronic fatigability have identified groups of patients with the following characteristics: persistent or relapsing illness lasting at least 6 months, characterized primarily by extreme fatigue and associated with other nonspecific symptoms, with no other detectable disease that would be likely to cause the symptoms. There is little convincing serologic evidence, so far, that these study patients' symptoms are caused by EBV or by any other known virus. CFS may in some cases be found to be associated with an immune system defect, and there is evidence to suggest that some pre-existing psychological tendencies may predispose persons to develop CFS or CFS-like symptoms. A reasonable hypothesis is that psychological factors, an inherent or acquired immunologic abnormality, and/or any of several infectious or other environmental stimuli may combine in various forms to cause CFS.

Introduction

The Chronic Fatigue Syndrome (CFS) is a recently defined illness that is characterized by debilitating fatigue and a group of related symptoms, including headache, sore throat, fever, weakness, lymph note pain, muscle and joint pains, memory loss, and difficulty concentrating. By definition the illness lasts at least six months and often lasts for years. It is currently a provisional diagnosis, to be considered by the physician only after all other potential causes of illness have been reasonably excluded. A working case definition of the illness was developed by the Centers for Disease Control (CDC), along with more than a dozen experts in the field, and published in 1988 [16] [See Box, below].

Onset, Symptoms and Transmissibility

In some persons, the symptoms of CFS follow an illness resembling influenza or other nonspecific acute viral diseases. For others, CFS seems to follow infectious mononucleosis or acute cytomegalovirus (CMV) infections. In many people CFS develops gradually, with no detectable cause.

CFS is not a progressive disease. For most people, symptoms plateau early in the course of illness and recur with varying degrees of severity for at least six months. Death resulting from CFS has not been reported. There is no convincing evidence that the illness can be transmitted from person to person, and there is no apparent justification for CFS sufferers to be isolated from other persons.

Despite the unfortunate name, "yuppie flu," given to it by the media, it is not at all limited to this group. CFS is diagnosed in people from all walks of life, ranging in age from children to adults in their 50s and 60s; however, most of the patients who have sought medical care are Caucasian women aged 30-50 years.

Prevalence

It is not known how many people have CFS because it cannot be diagnosed with certainty. Estimates of CFS prevalence have been as high as 5% of persons attending a university fatigue clinic[22], and 21% of 500 unselected patients in a university general medical clinic[5]. Both of these studies used highly selected populations, and neither provides a good estimate of the frequency of CFS in the general population. The researchers in the second study acknowledged that the forty patients in this study group may not have been as ill as some participants in other studies; and many may not have fulfilled published criteria for CFS. In an effort to get better estimates of CFS frequency, in October, 1989 the CDC initiated a CFS Surveillance and Follow-up System in four sites across the U.S.

History of CFS

For more than a century, there have been reports in the scientific literature of syndromes of chronic fatigue associated with a variety of other symptoms, including low-grade fever, sore throat, lymph node enlargement, headache, muscle aches, joint pains, and feelings of depression. Over the years, medical and other health practitioners have developed a variety of explanations which include anemia, hypoglycemia, environmental allergy, or candidiasis. Several investigators have described a chronic debilitating illness following acute infectious mononucleosis[3,7,18,25]. An illness, variably called benign myalgic encephalomyelitis (ME), epidemic neuromyasthenia, or Icelandic disease, has been described repeatedly during the past fifty years. This illness is very much like CFS except that it has usually been described as occurring in epidemics[1,13]. A chronic debilitating condition following apparent infection with any of several different infectious agents has also been described[27]. The illness called either fibrositis or fibromyalgia is also similar to CFS (they may

represent the same illness)[12]. The etiology of these syndromes of chronic fatigue has remained unknown in spite of intensive search.

Possible Causes

Epstein-Barr Viral Infections

Several recent studies have attempted to link CFS to the Epstein-Barr virus (EBV)[10,19,28,30]. EBV is one of the family of herpesviruses, and EBV infection is almost inevitable in human beings. In the United States, 80-95% or adults have EBV antibodies by age 35 to 40. In developing countries, most humans acquire the virus during childhood[9]. In children, acute EBV infection usually causes no symptoms or is indistinguishable from the other mild, brief illnesses of childhood[4,11]. In the United States, infection with EBV tends to be acquired during adolescence or young adulthood and the classic manifestation of the virus is infectious mononucleosis. Between 30 and 45% of individuals in these age groups who are newly infected with EBV in the U.S. develop mononucleosis[2,26]. Although the symptoms of mononucleosis usually resolve within one or two months, EBV chronically infects cells in the throat for the rest of the person's life. It can periodically reactivate and be shed in the saliva of infected persons without producing symptoms, and it is therefore almost impossible to prevent transmission of the virus[23]. EBV also establishes a lifelong latent infection of a small fraction of B lymphocytes[31], and may cause two malignant diseases, Burkitt's lymphoma and nasopharyngeal carcinoma.

At least two studies have reported that persons with CFS or CFS-like illnesses are no more likely than healthy controls to have EBV antibodies[5,15]. Furthermore, although in one study these patients, as a group, had slightly higher EBV titers than controls, the two groups overlapped and the "elevated titers" were of no value in determining the diagnosis or in assessing the status of illness in individual patients. This testing also found similar, slightly higher titers against several other viruses in the patient group, further decreasing the likelihood that EBV was the cause of their illnesses[15].

It remains possible that reactivation of the EBV could be a factor in the onset of a symptom complex such as CFS in some persons, and some researchers continue to pursue this possibility. However, elevated titers of EBV antibodies are frequently found in healthy persons and in persons with a variety of other diseases, and some CFS patients lack EBV antibodies. Thus, there is no consistent link between elevated EBV antibody titers and the presence of CFS, and measurement of the titers is not of use in diagnosing or treating the illness. Most investigators now believe it is unlikely that EBV is the causal agent in most cases of CFS.

Other Viruses

Other viruses have been associated with CFS in some studies, although none appears to be the specific cause. Holmes[15] reported that antibodies against other human herpesviruses (CMV, and Herpes simplex virus types 1 and 2) and measles virus were higher in patients with CFS-like illnesses than in healthy controls. Also, several recently published research abstracts suggest that antibody levels to the newly discovered human herpesvirus-6 (HHV-6) are higher in patients with CFS than in control subjects. A recent study[8] reported that 69% of CFS patients, 86% of persons with miscellaneous other disorders and 12.5% of controls had antibodies against this virus, suggesting that persons with a variety of illnesses may have secondarily increased HHV-6 titers. These higher levels are not specific indicators of viral activity, and may simply represent nonspecific immune responses to a variety of stimuli. Although it is possible that HHV-6 may play a role in CFS, this cannot be proven using current antibody tests.

Immunologic Abnormalities

Several subtle immunologic abnormalities have been described in some patients with CFS. Low levels of specific gamma globulins have been reported in 17 to 71% of some groups of CFS patients in some studies[10,28] but in less than 15% of patients in a later study[29]. Circulating immune complexes have been described in 30% to over 50% of patients[28,29]. Also, increased ratios of CD4/CD8 (or "helper"/"suppressor") T-lymphocytes have been reported[10]. In a study of natural killer cells in 41 patients with CFS[6], many CFS patients had relatively low numbers of NKH1 + T3- lymphocytes, a population that represents the majority of NK cells in normal individuals. Most of the CFS patients had NK counts that were within the normal range, although the CFS group as a whole has lower counts than the control group. Also, their NK cells often had impaired function. The significance of these defects is uncertain.

These and other immunologic findings must be regarded as preliminary, but the data suggest the possibility that modest immunologic dysfunction may occur in a small portion of CFS patients. Because such abnormalities have been reported, some physicians and support groups prefer to call the illness chronic fatigue and immune dysfunction syndrome (CFIDS). Most experts continue to prefer CFS, because most patients do not have these immunologic abnormalities.

Psychological Aspects of CFS

There is a great deal of controversy regarding the role of psychological factors and psychiatric diseases in causing CFS. Many of the physical symptoms of CFS--headache, muscle aches, difficulty in concentrating and sleep disorder--are also characteristic of primary mood disorders. However, other symptoms--sore throat, fever, lymph node enlargement, and joint pains--suggest an underlying physical illness. Some of the patients state that CFS began at points in their lives when they were under great psychological stress, suggesting that this may play a role in the illness. The majority of CFS patients describe themselves as depressed or anxious, but many say that the depression and anxiety developed after the onset of CFS and is a secondary reaction to CFS. A number of current studies are attempting to assess the importance of these factors in CFS.

Diagnosis

It is very important for the patient with CFS symptoms to be fully evaluated for other chronic diseases. Chronic fatigue, as an isolated symptom is common in the general population, and CFS appears to be present in only a small fraction of persons who complain of chronic fatigue[21]. In fact, many practitioners believe that the typical patient

seeking medical care for a complaint of chronic fatigue is suffering from a primary psychiatric disorder[22]. Many other well-recognized organic illnesses can also produce chronic fatigue, and such illnesses must be considered in the differential diagnosis of CFS. These illnesses are summarized in the CDC working case definition for CFS[16] [see Box]. Most of these diseases can be treated or managed appropriately following diagnosis and some may be progressive or even fatal if untreated, justifying the cost in time and money of a full medical evaluation. It is also advisable to periodically repeat such evaluations. Many instances have been reported in which patients diagnosed with CFS have later been found to have a specific disease, such as a connective tissue disorder, malignancy, or other chronic illness, that was likely to have been the cause of the CFS symptoms from the beginning.

Treatment

No proven effective treatment for CFS now exists. There are some anecdotally reported successes in small numbers of patients with a wide range of treatments, including antiviral and immunomodulating drugs, vitamins, holistic remedies, diet modifications, and activity reduction. However, such anecdotal reports may often reflect placebo effects or the natural course of the illness, not true therapeutic effects of treatment. Only one agent, acyclovir, has undergone rigorous clinical testing, and was found to be no more effective than a placebo[29].

Most experts recommend a regimen of balanced diet, adequate rest, and moderate physical conditioning. Some researchers have suggested that low doses of antidepressant drugs such as doxepin, taken at bedtime, have improved many patients' symptoms. All treatments have potential side effects, and in many instances, the risk of side effects outweighs the potential benefits of treatment[32]. In addition, many experimental treatments are often expensive. Before consenting to treatment with an experimental or unproven medication, the patient should discuss in detail the known potential benefits and risks of the treatment and,

Case Definition for The Chronic Fatigue Syndrome

(Holmes GP, Kaplan JE, Gantz NM, et al. Ann Int Med. 1988;108:387)

A case of CFS must fulfill **major criteria 1 and 2,** and the following **minor criteria: 6 or more of the 11 symptom criteria and 2 or more of the 3 physical criteria; or 8 or ore of the 11 symptom criteria.**

Major criteria

1. New onset of persistent or relapsing, debilitating fatigue in a person who has no previous history of similar symptoms, that does not resolve with bedrest, and that is severe enough to reduce or impair average daily activity below 50% of the patient's premorbid activity level for a period of at least 6 months.
2. Other clinical conditions that may produce similar symptoms must be excluded by thorough evaluation, based on history, physical examination, and appropriate laboratory findings. These conditions include malignancy; autoimmune disease; localized infection; chronic or subacute bacterial disease, fungal disease, and parasitic disease; disease related to human immunodeficiency virus infection; chronic psychiatric disease; chronic inflammatory disease, neuromuscular disease; endocrine disease; drug dependency or abuse; side effects of a chronic medication or other toxic agent; or other known or defined chronic pulmonary, cardiac, gastrointestinal, hepatic, renal, or hematologic disease.

Appropriate studies for evaluating patients include: Complete blood count with differential cell count; Serum creatinine, electrolytes, glucose, total protein, albumin, calcium, and phosphorus levels; total bilirubin, ALT, AST, and alkaline phosphatase levels, creatine kinase level; ESR; urinalysis; TSH level; ANA, RF titers, HIV serology; EBV capsid antigen IgM serology; CMV IgM serology; HBsAg, HAV IgM antibodies; toxoplasmosis serology; serum immunoglobulin levels; Lyme serology; RPR-CT or VDRL for syphilis; Chest radiograph, PPD. If any of these tests are abnormal, the physician should search for other conditions that may cause such a result.

Minor Criteria

Symptom criteria

To fulfill a symptom criterion, a symptom must have begun at or after the time of onset of increased fatigability, and must have persisted or recurred over a period of at least 6 months. Symptoms include:

1. Mild fever--oral temperature between 37.5 C and 38.6 C if measured by the patient--or chills.
2. Sore throat
3. Painful lymph nodes in the anterior or posterior cervical or axillary distribution
4. Unexplained generalized muscle weakness
5. Muscle discomfort or myalgia
6. Prolonged generalized fatigue after levels of exercise that would have been easily tolerated in the patient's premorbid state
7. Generalized headaches
8. Migratory arthralgia without joint swelling or redness
9. Neuropsychological complaints (one or more of the following: photophobia, transient visual scotomata, forgetfulness, excessive irritability, confusion, difficulty thinking, inability to concentrate, depression)
10. Sleep disturbance
11. Description of the main symptom complex as initially developing over a few hours to a few days

Physical Criteria

Physical criteria must be documented by a physician on at least two occasions, at least 1 month apart.

1. Low grade fever--oral temperature between 37.6 C and 38.6 C
2. Nonexudative pharyngitis
3. Palpable or tender anterior or posterior cervical or axillary lymph nodes.

if there is any question, obtain a second opinion from another reputable physician.

Recommendation

The current recommendation for persons contacting the CDC who believe they may have CFS is to consult carefully with their physicians to make certain that other conditions have been thoroughly ruled out. Periodic rechecks for other diseases are important, because some of these may be quite difficult to detect and yet may be treatable. Currently available EBV antibody tests are of no value in diagnosing the syndrome. More specific laboratory tests are being sought that will enable better differentiation of ill patients from otherwise asymptomatic persons, but for now the diagnosis is based upon symptoms, physical findings.

Information available to date indicates that patients with this syndrome, whatever its cause, tend to suffer relapses after over-exerting themselves. Therefore, the best recommendation is to get plenty of rest, exercise only as much as can be tolerated, and obtain good balanced nutrition. Treatment, if necessary, should be obtained through a reputable physician. A number of proposed treatments are of no value, and some may actually be harmful. In persons who have significant depressive symptoms, low doses of antidepressants may be indicated. A variety of antidepressant agents are available, and each has its own range of side-effects. If one agent fails to be tolerated, another may be tried.

The CDC does not recommend specific physicians, but generally recommends consultation with an infectious disease specialist, or the infectious disease department at a university-affiliated medical center, or to ask your county medical society for a referral.

For More Information

CDC hot-line: (404) 332-4555, CFS is listed as #7

National and local non-profit groups for persons who are thought to have CFS (CDC does not endorse these organizations or their published information):

Minnan, Inc., Box 582, Glenview, IL 60025

The CFIDS Society, Box 230108, Portland, OR 97223 (503) 684-5261

The CFIDS Association, Community Health Services, Box, 220398, Charlotte, NC 28222 (704) 362-2343

The National CFS Association, 919 Scott Avenue, Kansas City, KS 66105 (913) 321-2278

References

1. Acheson ED. The clinical syndrome variously called benign myalgic encephalomyelitis, Icelandic disease, and epidemic neuromyasthenia. Am J Med. 1959;4:569.

2. Andiman WA. The Epstein-Barr virus infections in childhood. J Ped. 1979;95:171.

3. Bender CE. Recurrent mononucleosis. JAMA. 1962;182:156.

4. Biggar RJ, Henle W, Fleisher G, et al. Primary Epstein-Barr virus infections in African infants, II. Clinical and serologic observations during seroconversion. International J Cancer. 1978;22:239.

5. Buchwald D, Sullivan JL, and Komaroff AL. Frequency of chronic active Epstein-Barr virus infection in a general medical practice. JAMA. 1987;257:2302.

6. Caligiuri M, Murray C, Buchwald D, et al. Phenotypic and functional deficiency of natural killer cells in patients with chronic fatigue syndrome. J Immunol. 1987;139:3306.

7. Chang RS, Maddock R. Recurrence of infectious mononucleosis. Lancet. 1980;1:704.

8. Dale JK, Strauss SE, Ablashi DV, et al. The Inoue-Melnick virus, human Herpesvirus type 6, and the chronic fatigue syndrome. Ann Int Med. 1989;110:92.

9. de-The G. Epidemiology of Epstein-Barr virus and associated disease in man. In: Roizman B(ed). The Herpesviruses, Vol. 1. New York: Plenum, 1982:25-103.

10. Dubois RE, Seeley JK, Brus I, et al. Chronic mononucleosis syndrome. Southern Med J. 1984;77:1376.

11. Fleisher G, Henle W, Henle G. Primary infection with Epstein-Barr virus in infants in the United States: clinical and serologic observations. J Infect Dis. 1979 ;139:553.

12. Goldenberg DL. Fibromyalgia syndrome: an emerging but controversial condition. JAMA. 1987;257:2782.

13. Henderson DA. Epidemic neuromyasthenia--clinical syndrome. NEJM. 1959;260:757.

14. Henle W, Henle G, and Lennette ET. The Epstein-Barr virus. Scientific American. 1987;241:48.

15. Holmes GP, Kaplan JE, Stewart JA, et al. A cluster of patients with a chronic mononucleosis-like syndrome. JAMA. 1987;57:2297.

16. Holmes GP, Kaplan JE, Gantz NM, et al. Chronic fatigue syndrome: a working case definition. Ann Int Med. 1988;108:387.

17. Holmes GP. The chronic fatigue syndrome. In: Schlossberg D (ed). Infectious Mononucleosis. 2nd ed. New York: Springer-Verlag, 1989:172-193.

18. Isaacs R. Chronic infectious mononucleosis. Blood. 1948;3:858.

19. Jones JF, Ray G, Minnich LL, et al. Evidence for active Epstein-Barr virus infection in patients with persistent, unexplained illnesses: elevated anti-antigen antibodies. Ann Int Med. 1985;102:1.

20. Kroenke K, Wood DR, Mangelsdorff AD, et al. Chronic fatigue in primary care: prevalence, patient characteristics, and outcome. JAMA. 1988;260:929.

21. Manu P, Lane TJ, and Matthews DA. The frequency of chronic fatigue syndrome in patients with symptoms of persistent fatigue. Ann Int Med. 1988;109:554.

22. Manu P, Matthews DA, and Lane TJ. The mental health of patients with a chief complaint of chronic fatigue: a prospective evaluation and follow-up. Arch Int Med. 1988;148:2213.

23. Miller G, Niederman JD, and Andrews L. Prolonged oropharyngeal excretion of Epstein-Barr virus after infectious mononucleosis. New Eng J Med. 1973;288:229.

24. Okano M, Thiele GM, Davis JR, et al. Adenovirus type-2 in a patient with lethal hemorrhagic colonic ulcers and chronic active Epstein-Barr virus infection. Ann Int Med. 1988;108:693.

25. Paterson JK, and Pinninger JL. A case of recurrent infectious mononucleosis. Br Med J. 1955;2:476.

26. Rapp CE, and Hewetson JF. Infectious mononucleosis and the Epstein-Barr virus. New Eng J Med. 1977;296:132.

27. Salit IE. Sporadic postinfectious neuromyasthenia. Canadian Med Assoc J. 1985;133:659.

28. Straus SE, Tosato G, Armstrong G, et al. Persisting illness and fatigue in adults with evidence of Epstein-Barr infection. Ann Int Med. 1985;102:7.

29. Straus SE, Dale JK, Tobi M, et al. Acyclovir treatment of the chronic fatigue syndrome: lack of efficacy in a controlled trial. New Eng J Med. 1988;319:1697.

30. Tobi MA, Morag A, Ravid Z, et al. Prolonged atypical illness associated with serologic evidence of persistent Epstein-Barr virus infection. Lancet. 1982;1:61.

31. Rocchi GA, DeFelici A, Ragona G, et al. Quantitative evaluation of Epstein-Barr virus-infected mononuclear peripheral blood leukocytes in infectious mononucleosis. New Eng J Med. 1977;296:132.

32. Gantz NM, and Holmes GP. Treatment of patients with chronic fatigue syndrome. Drugs. 1989;36:855-62.

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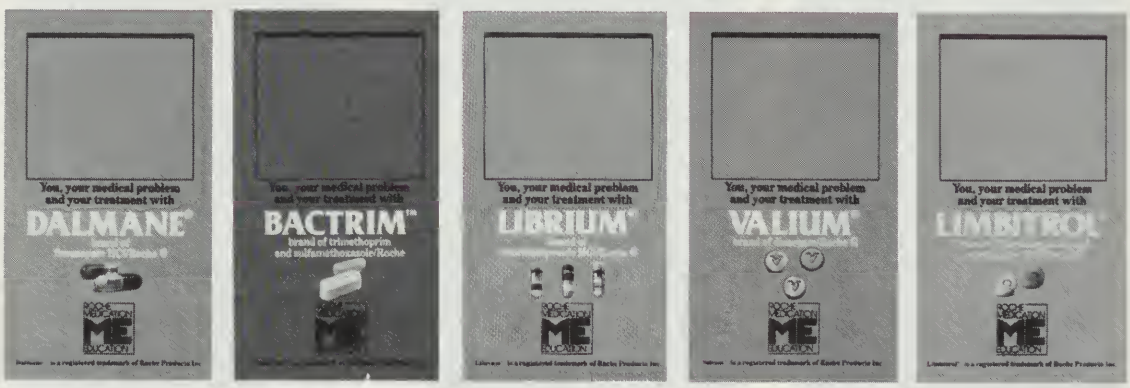
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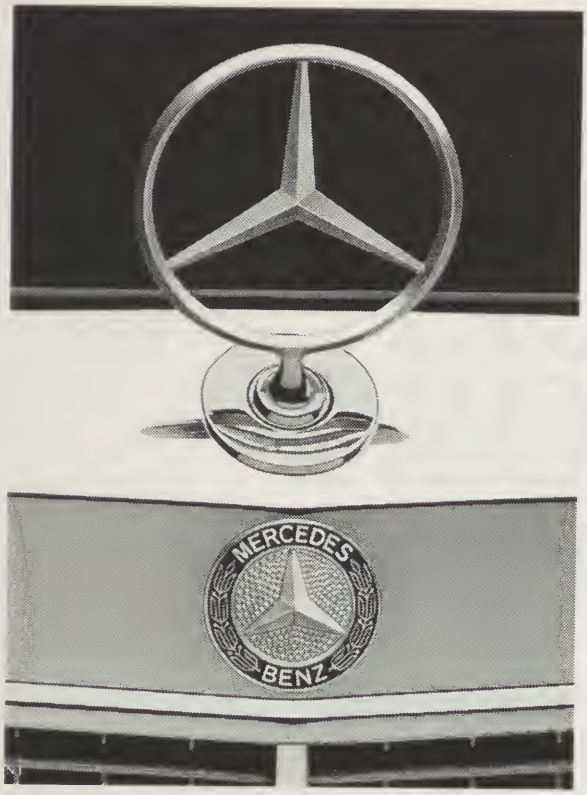
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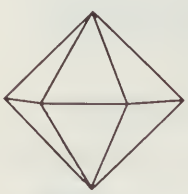
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Executive Director's Newsletter

May 1990

Legislative Update

Med Chi physicians significantly helped its lobbying efforts this year. Your endeavors to maintain high standards of care for Maryland citizens have contributed to many of this year's legislative victories:

Mandated Medicare Assignment Defeated for Fourth Consecutive Year House Bill 617, which would have required physicians to accept Medicare Assignment based on income levels, was defeated in Committee by a vote of 17 to 6. Med Chi thanks all those physicians who helped to defeat this legislation.

HSCRC Regulation of Fees Defeated The Health Services Cost Review Commission's bill that would have regulated the activities of anesthesiologists, radiologists, and pathologists was defeated in committee on March 9, 1990 by a vote of 21 to 0.

HSCRC Utilization Control Mechanisms Defeated House Bill 1195, which would have allowed the Health Services Cost Review Commission to conduct studies on the utilization and cost of nonhospital healthcare services and to recommend utilization control mechanisms for these services, was defeated in committee by a vote of 14 to 7 on March 9, 1990.

1990 Annual Meeting

Med Chi's Annual Meeting, "The 1990s What Can We Expect?" will be held on May 9-11, 1990 at the Turf Valley Hotel and Country Club in Ellicott City. Med Chi is pleased to announced that Congressman Benjamin L. Cardin will discuss "Federal Legislative Issues" during the theme symposium on May 11, 1990. These speakers will be featured at this year's Annual Meeting:

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During the meeting physicians can visit technical exhibits and can choose from over 40 scientific sessions that will fulfill Category I CME credits. Registrations are welcome at any time. Please call Ralph Tyksinski at Med Chi's Education and Meeting Management Department at 301-539-0872 or toll free 1-800-492-1056 for more information.

Update on New Credentialing Service

Healthcare Credentials Verification, Inc. (HCV) is the name of Med Chi's joint effort with the Maryland Hospital Association (MHA). Plans for this statewide clearinghouse for physician credentialing documents are proceeding on schedule. Med Chi and MHA will jointly announce the appointment of HCVs 12 member Board of Directors by the end of the month, and a search for permanent office space is nearing completion.

For this effort to achieve its maximum benefit for physicians, it is critical to obtain participation of hospitals. If hospitals do not participate in the service, physician's must duplicate the paperwork and record gathering done by HCV. The idea behind this joint effort is to minimize the paperwork and effort required of physicians applying for admission privileges or for reappointment at a hospital. The program also will eliminate the duplicate correspondence and file building now done in hospitals whenever a physician holds privileges at more than one hospital.

Med Chi physicians are encouraged to check with their hospital medical staff office to determine if that hospital is participating in the service. **If the hospital is not participating, physicians should discuss this matter with the chief of the hospital medical staff and the hospital administration.** The Med Chi/MHA joint effort is intended to benefit everyone. Only by working together can we achieve this goal.

New Ethical Opinion

At the Med Chi Council meeting on March 15, 1990 the following Ethical Opinion on the physician's responsibility to patients as affected by contractual agreements was adopted:

Responsibility of Physician to Patient as Affected by Contractual Agreements

> A physician who has a contractual agreement to treat patients continues to have the patient as his primary concern, regardless of the physician's source of compensation. If a conflict occurs between the patient's well being and that of the contracting agreement, the physician must decide in favor of the patient.

Increased Fee Schedule for Medicaid

At its meeting on March 15, 1990, Council voted to support a new Medicaid Open Enrollment Program. The Council's position was to support an across-the-board increased fee schedule. This was considered above other alternate payment plans such as capitation. The preliminary plan provides for increased reimbursement of about 55 percent above current allowances. The increase is intended to encourage a greater number of primary care providers caring for Medicaid patients.

New Publications

Med Chi has two new publications available for member physicians:

Your Patient's Medical Records- a booklet that answers the most commonly asked questions about ownership, access, and release of medical records.

Issues for the Retiring Physician- a guide designed to acquaint physicians with matters that face the retiring physician.

Members can obtain a free copy of both publications during the Annual Meeting. Additional copies or copies to nonmembers are available for a nominal fee. To order, contact Betsy Newman, Med Chi Public Relations Department at 301-539-0872 or toll free 1-800-492-1056.

Med Chi Defense Panels

Physicians are reminded that whenever a member physician is involved in a lawsuit Med Chi will provide a defense panel to evaluate the case. The defense panel consists of physicians certified in the member defendant's specialty who can provide an accurate and objective appraisal of the suit. For every member to receive the maximum benefit of this free service, all physicians asked to serve on the defense panels are urged to participate. For more information about Med Chi's defense panels contact Erica Parker in Med Chi's Legal Services Department at 301-539-0872 or toll free 1-800-492-1056.

Use of Certificates of Medical Necessity

Members should be aware of the growing problem of inappropriate solicitation by medical equipment suppliers. Vendors are using high-pressure sales techniques to persuade consumers they need equipment, and then they are asking the consumer to present a completed certificate of medical necessity form for their physician's signature. Physicians are the only individuals who can determine the home medical equipment necessary for their patients. Physicians who are pressured by a vendor or physicians who feel that questionable practices are taking place should contact the Medicare carrier to report the incident to the Maryland Consumer Protection Division, Health Education Advocacy Unit at 301-528-1840 to obtain a complaint form.

Notice Regarding Retirement Plans

If you are a participant or employer holding assets in a terminated pension, terminated profit-sharing, or terminated stock bonus plan, please read this notice:

> A pension, profit sharing, or stock bonus plan, under which benefit accruals have ceased, is not terminated if.. the plan assets are not distributed... but held in the trust.

In terminated plans, a participant's assets can no longer be held in a trust until he or she reaches retirement age. All assets must have been distributed to the participants by July 3, 1989 in order for the plan to be considered "terminated" by the IRS.

The IRS stated in revenue ruling 89-87 that:

> Under section 7805(b) an eligible plan will be treated as having terminated on the date of plan termination specified by the employer if distribution of all remaining plan assets is completed prior to the later of January 1, 1990, or as soon as administratively feasible after July 3, 1989.
>
> Whether a distribution is made as soon as 'administratively feasible' is to be determined under all the facts and circumstances of the given case but, generally, a distribution of which is not completed within one year following the date of plan termination specified by the employer will be presumed not to have been made as soon as administratively feasible.

Under this provision, terminated plans would have to distribute the assets no later than July 3, 1990.

IF THE QUALIFIED PLAN ASSETS ARE NOT DISTRIBUTED, THE PLAN MUST BE RETROACTIVELY AMENDED TO OPERATIONALLY COMPLY WITH ALL QUALIFICATION REQUIREMENTS.

If you have assets in one of the above listed "terminated" retirement plans, the distribution will be taxed if it is not rolled into an IRA. The QUADS IRA can accept assets that may not be administratively feasible in other IRAs. Mutual funds, stocks, bonds, CDs, limited partnerships, promissory notes, mortgages, real-estate, privately held stock, etc., are all acceptable assets under the QUADS IRA Plan. For further information regarding this matter contact Alan Rifkin, Esq., and Gerard E. Evans, Esq. at 301-974-8352.

Medicare Charges to Physicians

Med Chi has learned that some Medicare carriers are charging physicians for required information, such as information on Maximum Allowable Charges and identification numbers for referring physicians. Med Chi and the AMA maintain that carriers should not charge physicians for information they need to comply with government imposed legal requirements. If you have any information on carriers that maintain an information charge policy, contact Richard Deem at the AMA Washington Office 202-789-7413.

Medicare Program Changes

Effective April 1, 1990 several new Medicare program changes were enacted in the Omnibus Budget Reconciliation Act of 1989 (P.L. 101-239). This act included three key Medicare physician payment reform provisions: (1) a five-year transition to a new payment schedule based on an RBRVS beginning in 1992; (2) a three-year transition to new balance billing limits beginning in 1991; and (3) the establishment of Medicare volume performance standards (MVPS) beginning this year. In addition, the OBRA 1989 legislation also included a number of other new Medicare program changes, many of which were implemented on April 1, 1990. A summary of these changes is presented below.

Sequestration Extension- Effective April 1, 1990, the 2% sequestration will be replaced by a 1.4% sequestration "reduction" in payments through the end of the fiscal year.

Medicare Economic Index (MEI) Increase- Effective April 1, 1990, the MEI increase is as follows:

- 4.2% increase for primary care services (CPT codes 90000-90170, 90300-90580, 92002, and 92004);
- 0% increase for radiology, anesthesia, and "overpriced" services (in addition, the conversion factors used to compute fee schedules for radiologists' services [excluding portable x-ray services] are reduced by 4%); and
- 2% increase for other physician services.

Maximum Allowable Actual Charge (MAAC) Updates- 1990 MAACs are updated as follows:

- If a 1989 MAAC is equal to or greater than 115% of the 1990 prevailing charge level for nonparticipating physicians, the 1990 MAAC equals 101% of the 1989 MAAC.
- If the 1989 MAAC is less than 115% of the 1990 prevailing charge level for nonparticipating physicians, the 1990 MAAC equals the greater of: 101% of the 1989 MAAC or 115% of the 1990 prevailing charge for nonparticipating physicians.

Customary Charges for "New" Physicians- Effective April 1, 1990, the customary charges of new physicians (physicians for whom adequate charge data are not yet available) are limited to 80% and 85% of the prevailing charges in each locality in the physicians' first and second years, respectively. These limits do not apply to primary care services or to services rendered in health manpower shortage areas. Previously, customary charges for new physicians were limited to the lower of the 50th percentile of weighted customary charges. In 1989, these limits were set at 80% of the prevailing charge levels for the first year of practice. In subsequent years, these physicians' customary charges were based on their own actual charges.

Limits on Actual and Prevailing Charges for "Overpriced" Procedures- "Overpriced" physician procedures and services are defined as those that had 1989 prevailing charges that were at least 10% greater than preliminary resource-based payment schedule estimates developed by the Physician Payment Review Commission (i.e., reduced national average prevailing amounts). Approximately 250 "overpriced" procedures and services were identified. Physicians who have 1990 prevailing charges that are reduced by this provision should have received the changes in a "Dear Doctor" letter that was sent by carriers before March 31, 1990.
Effective April 1, 1990, the prevailing charge for identified "overpriced" procedures for participating and nonparticipating physicians will be reduced by the *lesser* of:

- 15% of the 1989 prevailing charge, or
- 1/3 of the percent by which the 1989 prevailing charge exceeds the Locally-Adjusted Reduced Prevailing Amount (LARPA).

LARPAs are calculated by multiplying reduced national average prevailing amounts by geographic practice cost indexes (GPCIs) for each payment locality. (Note: variation in LARPAs reflects *only* variation in the physician "overhead" portion of the reduced national average prevailing amounts.)

As an example, assume that the 1989 prevailing charge for an "overpriced" procedure was $1,000 and the LARPA for a given locality is $800.

- 15% of the 1989 prevailing charge is *$150*;
- 1/3 of the percent by which the 1989 prevailing charge exceeds the LARPA is 8.33%, or *$83.30*.

— the 1989 prevailing charge exceeds the LARPA by 25%
($1,000 - $800 = $200)
($200/$800 = 25%)
— 1/3 of 25% is 8.33%

The 1990 prevailing charge for this procedure would be $916.70 (1,000 - $83.30) because $83.30 is a smaller reduction than $150. (A nonparticipating physician's prevailing charge would be 5% less, or $870.86.)

In addition, nonparticipating physicians providing "overpriced" services that are subject to these reductions will face MAACs and "special" charge limits for these services that will be calculated as follows:

- 125% of the nonparticipating "reduced" prevailing charge,

plus

- 1/2 of the amount by which the physician's MAAC for the procedure for the previous 12-month period exceeds the 125% level.

In such cases, the *lower* of the MAAC or the "special" charge limit will serve as the physician's actual charge limit.

Limits on Actual and Prevailing Charges to Designated Specialties- Effective April 1, 1990, for a number of high volume surgical, radiological, and diagnostic physician services, the prevailing charge for participating and nonparticipating physicians will be limited to the prevailing charge (or fee schedule amount) for the specialty that provides the service *most frequently nationally*. Physicians who have 1990 prevailing charges that are reduced by this provision should have received the changes with their "Dear Doctor" letter. (NOTE: This limitation applies only when a Medicare carrier recognized specialty differentials in the calculation of prevailing charges for a service.)

Similar to "overpriced" procedures, nonparticipating physicians providing services whose prevailing charge levels are reduced as a result of the designated specialty provision, will be subjected to both MAACs and "special" charge limits that will be calculated as follows:

- 125% of the nonparticipating "reduced" prevailing charge, *plus*
- 1/2 of the amount by which the physician's MAAC for the service for the previous 12-month period exceeds the 125% level.

Once again, the *lower* of the MAAC or the "special" charge limit will serve as the nonparticipating physician's actual charge limit.

In addition, it should be noted that *payment reductions due to the designated specialty provision will be applied after reductions have been made as a result of the "overpriced" procedure provision. Thus, the overall reduction for a procedure or service subject to both provisions could exceed 15%.* (Note: 92 of the 250 "overpriced" procedures are subject to the designated specialty provision.)

Special Payment Method for Nuclear Medicine Physicians- Effective April 1, 1990, physicians who submitted charges for nuclear medicine services that accounted for at least 80% of their total Part B charges from July 1, 1988 to June 30, 1989, will be paid based on a blend of 1/3 of the radiology fee schedule amount for the procedure in the locality and 2/3 of 101% of the 1988 prevailing charge level amount for the procedure in the locality.

Time Units for Anesthesia Services- Effective April 1, 1990, fractional time units for anesthesia services will be based on actual time instead of being "rounded" to the next full time unit.

Limitations on Charges for Medicare Beneficiaries Eligible for Medicaid Benefits Effective April 1, 1990, payment on an assigned basis will be required for physician services provided to individuals enrolled under Medicare who are eligible for Medicaid to purchase their Medicaid coverage but not otherwise eligible for Medicaid (Qualified Medicare Beneficiaries, or QMBs). Assignment currently is required for Medicare beneficiaries who are actually enrolled in a state Medicaid program. QMBs are individuals with incomes below the federal poverty level but not eligible for Medicaid.

Related Issues-

- *Local Code Collapsing* - During March 1990, the Health Care Financing Administration (HCFA) began an initiative to collapse or eliminate special local carrier codes as part of its standardization plan to implement the new Medicare physician payment schedule based on the RBRVS. Carriers were to have notified physicians of local code changes by February 15, 1990. The impact of this initiative will vary due to differences in carrier use of local codes.
- *Participation Agreements* - "Dear Doctor" letters, accompanied by physician charge screens and charge limit data *reflecting the changes discussed above*, were to have been mailed by carriers no later than February 28, 1990. Physicians who have not received this information should contact their carrier immediately. Physicians experiencing difficulties in obtaining such information from their carrier may contact the AMA Washington Office for assistance. Participation decisions should have been made by March 31, 1990.
- *Carrier-Assigned Provider Identification Numbers* - "Rendering and performing" physicians are reminded that they must include their local carrier-assigned provider identification number (PIN), not to be confused with the unique physician identification numbers (UPINs) on all Medicare claims. Effective May 1, 1990, assigned claims without carrier-assigned PINs will be rejected, while unassigned claims will be developed (i.e., investigated) for the missing PINs. Assigned claims that are rejected for missing PINs should be resubmitted rather than pursued through the appeals process. Group practice physicians should use *both* their group PINs and their individual PINs provided by the carrier.

Additional Information- Details on other OBRA 1989 provisions will be provided over the next several months.

Angelo J. Troisi, FACHE
Executive Director

192nd Annual Meeting
of the
Medical and Chirurgical Faculty
of Maryland

1990s- What Can We Expect?

Wednesday, Thursday, Friday
May 9, 10 & 11, 1990

Turf Valley Hotel and Country Club
Ellicott City, Maryland

Featuring:

- Wednesday's Plenery Speaker - *Lonnie R. Bristow* MD, AMA Trustee
- Friday's Symposium - **"What to Expect in the 1990s"**
  - *Thomas Reardon* MD, AMA - **"Physician Payment, Potential Changes: Issues and Answers"**
  - *Palma E. Formica* MD, AMA - **"Long Range Plans and Expectations"**
  - *Ross N. Rubin* Esq, AMA, *John Sewerd* MD, AMA and *John Zapp* DDS, AMA - **"Legislative Affairs"**
- Friday's Guest Lecturer-*Victor A. McKusick* MD, Prof. of Medical Genetics, JHU

Meeting Registration

____ Member of Med Chi (Includes Wed. & Thurs. lunch)	NO CHARGE	
____ Non-Member Physician (check category that applies)		
____ Registering for entire meeting (includes 1 lunch)	$200.00	$_____
(After April 25)	$220.00	$_____
____ Apply fee to first year's dues		
____ Credit hours only (per credit Hour)	$20.00	$_____
____ No CME credits, No lunch	NO CHARGE	
____ Resident and Students (includes 1 lunch)	$30.00	$_____
____ Can apply to first year's dues		
____ Allied Health Professional w/ letter of accreditation & 1 lunch	$50.00	$_____
____ No CME credits, No lunch	NO CHARGE	

Meal Function Registration

____ Lunch, Wednesday, May 9 ____ Lunch, Thursday, May 10

NO CHARGE for Med Chi Members BUT reservations required.

Additional Tickets (indicate number)

____ Lunch, Wednesday, May 9	$10.00	$_____
____ Lunch, Thursday, May 10	$10.00	$_____
____ Prayer Breakfast, Thursday, May 10, 7:15 a.m.	$12.00	$_____
____ Presidential Banquet, Friday, May 11, 6:30 p.m.	$65.00	$_____
TOTAL AMOUNT ENCLOSED		$_____

PLEASE TURN TO OPPOSITE SIDE AND COMPLETE.

Pre-Registration Form

Please check the lectures you are most likely to attend *(for the purpose of room assignments).*

Wednesday, May 9

2:00 - 3:45 p.m.

- ☐ Plenary Session - "Health Care Financing - An American Solution"

3:45 - 5:45 p.m.

- ☐ "Examination of the Expert Medical Witness: A Mock Trial"
- ☐ "Computers in Your Office"
- ☐ "Physician as an Employer in the 1990s"
- ☐ "The Anatomy of a Case"
- ☐ "Children of Working Parents"
- ☐ "The Disease of Addiction - Impact on Feelings"
- ☐ "Reconstruction of the Breast- An Evaluation of Advances and Persistent Problems"

Thursday, May 10

7:15 - 8:45 a.m.

- ☐ Prayer Breakfast - "How Long Have You Had This?"

8:45 - 10:15 a.m.

- ☐ "Physician Character & Personality Traits That Predict Less Than Adequate Practice Standards"
- ☐ "AIDS - A Medical and Legal Review and Update for the 1990s"
- ☐ "Prevention of Blindness by Diabetes"
- ☐ "Practical Techniques for Promoting Your Practice"

2:00 - 3:30

- ☐ "Managing Multiple Risks in Cardiovascular Diseases"
- ☐ "Voice Disorders: Their Recognition, Treatment, and Prevention"
- ☐ "Sick Building Syndrom: Environmental Causes of Respiratory & Skin Allergy Problems"
- ☐ "AIDS in the 1990s - Living Long and Living Well: A Case for Optimism"
- ☐ "The Physician as Gatekeeper - A Professional Contradiction"

8:45 - 12:15 p.m.

- ☐ "The Great Cholesterol Controversies"

10:45 - 12:15 p.m.

- ☐ "Tobacco Dependence as an Addiction"
- ☐ "Movement Disorders in Primary Care and Psychiatry"
- ☐ "The Care of the Alzheimers Patient After Diagnosis"
- ☐ "Panel on Issues in Managed Care in Maryland"

3:45 - 5:45 p.m.

- ☐ "Stroke Care in the 90s: An Update on the Management of Acute Stroke and Stroke Rehabilitation"
- ☐ "Analysis of Physician Practice Variations - Implications for the 1990s"
- ☐ "Hepatobiliary Imaging in Noncalculus Hepatobiliary Disease with Emphasis on Surgically Correctable Disorders"
- ☐ "Young Physicians in the 1990s"
- ☐ "Breast Cancer: The Value of Mammography"

Friday, May 11,1990

8:45 - 10:15 a.m.

- ☐ "Findings of the Statewide Quality Assurance Committee"
- ☐ "Common Sense Approach to the Management of Hypertension"
- ☐ "High Risk Infants"
- ☐ "Modern Management of Communicable Diseases"
- ☐ "Using the Computer for Your Continuing Medical Education"

8:45 - 12:15 p.m.

- ☐ "Symposium - What to Expect in the 1990s" (Physician Payment, Long Range Planning, Legislative Affairs)

10:45 - 12:15 p.m.

- ☐ "Recognition & Management of Melanoma and Its Precursors"
- ☐ "Environmental and Occupational Health Threats"
- ☐ "Long-Term Care Insurance"

1:00 - 1:45 p.m.

- ☐ Victor A. McKusick Lecture

Name: _____

Address: _____

City: _____ Zip: _____

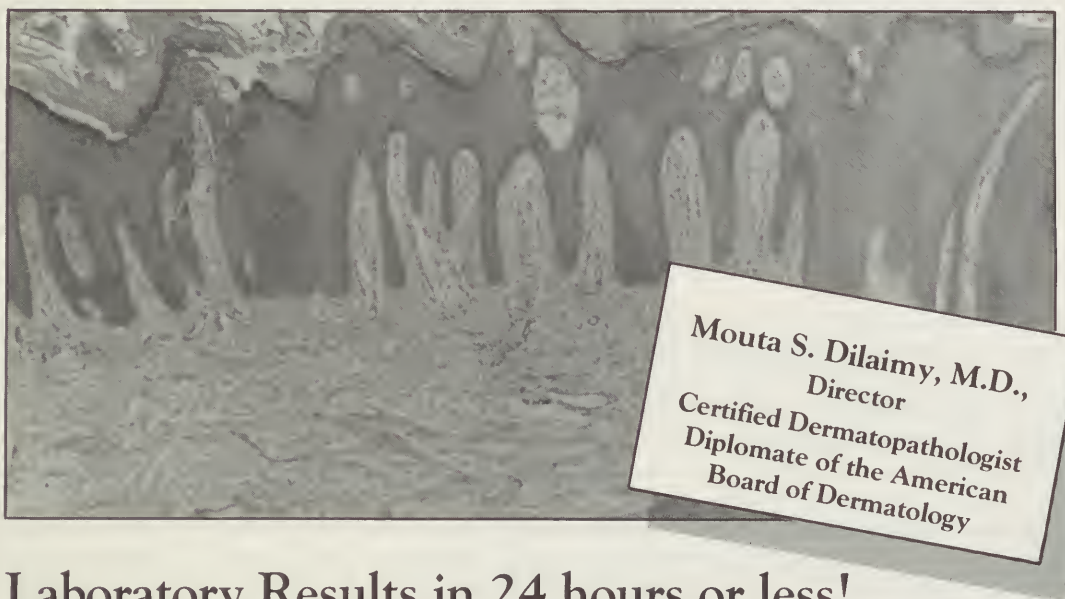
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Reynaldo L. Lee-Llacer MD 1990-1991 Med Chi President

Betsy Newman

Betsy Newman, Public Relations Director, Med Chi

On May 11, 1990 Reynaldo L. Lee-Llacer MD will become the Med Chi's President for 1990-1991. During his term, one of his primary concerns will be the state of our nation's healthcare system. "In the coming years our medical system is going to face many changes. Maryland physicians will need to be informed about these changes."

One of the most important issues for physicians today is the future of medicine in the United States.

Reynaldo Lee-Llacer MD,
Med Chi President 1990-1991

Ideals and Issues

"During the past few years," says Lee-Llacer, "the focus of Med Chi presidents was on improving communication with the membership. Past-president Michael R. Dobridge MD initiated communication meetings (called President's regional conferences) where area physicians could discuss their concerns with the Faculty's elected leaders. Raymond M. Atkins MD, Med Chi President for 1989-1990, embellished this concept and included continuing medical education programs at the conferences." Dr. Lee-Llacer intends to continue regional meetings, especially during the legislative session when interaction between physicians is critical.

Dr. Lee-Llacer views Med Chi's Annual Legislative Rally as an essential tool for notifying physicians about issues in the General Assembly. "Almost 200 physicians and auxiliary members demonstrated unity in Med Chi and showed their support for organized medicine by attending this year's rally in Annapolis," says Lee-Llacer. "We listened to speeches on legislative issues from legislators such as Senate President Mike Miller and House Speaker Clayton Mitchell. After the assembly, we broke up into smaller groups and met with our area legislators." According to Lee-Llacer, the rally not only improved communication but also enabled Med Chi physicians to be involved and to express their opinions to their representatives.

Dr. Lee-Llacer considers Med Chi's "position papers," initiated by 1989-1990 President Raymond M. Atkins MD, to be the culmination of the Faculty's efforts to improve communication to the membership. "These position papers," comments Lee-Llacer, "proved vital to the success of this year's legislative session because they put the physicians of our state in a pro-active position long before the legislative session occurred and enabled us to better

convey our ideas to our representatives. At the same time, these papers allowed legislators to respond to many important issues."

"Med Chi's position paper on Prescription Drug Control and Dispensing, for example, was an important factor in the defeat of the Triplicate Prescription proposal," says Lee-Llacer. He explains that under this proposal, physicians who prescribe schedule II drugs would be monitored by the state through a carbon copy triplicate prescription system. Physicians who often prescribe these drugs might prescribe other forms of medication that do not require a triplicate prescription in order to avoid a government investigation. As a result, many patients would not receive adequate medications for pain.

"I firmly believe that a triplicate prescription plan is an unnecessary and ineffective way to control prescription drug dispensing," adds Dr. Lee-Llacer who supports Drug Commission Chairman Robert R. Neall's alternative plan to track wrongful prescribing practices via a physician's Drug Enforcement Administration (DEA) number. "This plan would curb abuse of all prescription drugs (not merely schedule II drugs) and would have no adverse effects on good physicians or their patients."

The Uninsured and Health Access America

Dr. Lee-Llacer maintains that patient care has been and always must be a physician's primary concern. "We must preserve satisfactory levels of healthcare for the people of Maryland. Most importantly, we must make certain that *everyone* has access to quality healthcare."

Dr. Lee-Llacer believes that one solution to the lack of universal healthcare lies within the American Medical Association's proposal for "Health Access America," a plan to improve access to affordable, quality healthcare for all US citizens. Endorsing this proposal that accents the strengths of our nation's healthcare system Dr. Lee-Llacer states, "Our nation leads the world in providing the highest caliber of comprehensive medical care and education, yet over 33 million Americans do not have health insurance coverage or cannot afford the cost of medical treatment. Health Access America seeks to solve this problem by controlling healthcare cost increases, reforming Medicare and Medicaid, and insuring all Americans' access to the medical system.

"In Maryland, more than 550,000 citizens do not have health insurance," he continues, adding that many of these people do not qualify for government assistance. "Med Chi's position paper on 'The Problem of the Uninsured,' is based on the premise that there should be universal health insurance coverage so that all Americans can access healthcare."

Dr. Lee-Llacer remarks that, like the AMA's proposal, Med Chi's Position Paper supports required employer-provided health insurance that includes tax credits, premium deductibility, and other incentives. Med Chi also supports Medicaid reform, state-level insurance risk pools, and increased taxes on products such as alcohol and tobacco to finance health care programs and research.

"Maryland physicians participate in several programs that relieve problems of the uninsured," Dr. Lee-Llacer adds. "A few years ago Wayne C. Spiggle MD, in cooperation with other physicians in Allegany County, created Allegany Health Right: a nonprofit organization where physician volunteers provide free or low-cost healthcare services to the uninsured. Both Med Chi and the AMA's Health Access America program encourage physicians to participate in volunteer programs until the problem of the uninsured is alleviated."

Healthcare for the Elderly

"Another problem addressed by the Health Access America proposal is Medicare reform," says Lee-Llacer. "Mandated Medicare Assignment is not the solution to Medicare's problems. In 1988 Med Chi surveyed Maryland physicians and discovered that 89 percent participate in Medicare or accept assignment for some of their patients. The Prince George's County Medical Society, under past-president Robert Ruderman MD, developed a system that guarantees patients access to physicians who accept Medicare assignment as full and complete payment of services.

"For senior citizens who cannot get to a physician's office for physical reasons, Prince George's County offers a project where physician volunteers care for patients in area nursing homes," explains Dr. Lee-Llacer.

"Another proposed project in Prince George's County would provide a mobile clinic for patients lacking transportation to go to a physician. The clinic would have an x-ray and laboratory unit and would be staffed by volunteer physicians from Prince George's County. I believe this is a very important step in giving the elderly access to care."

Dr. Lee-Llacer believes that despite physicians volunteer efforts, there is still an enormous challenge ahead for physicians. He refers to the 1988 Maryland



Reynaldo Lee-Llacer MD and his wife enjoy their home.

physicians' survey where 84 percent of physicians provided some form of uncompensated or discounted care. "Physicians volunteer services," comments Lee-Llacer, "can lessen the problem of healthcare costs, but there are many other ways to reduce the cost of healthcare."

Tort Reform

Dr. Lee-Llacer believes more tort reform is necessary to reduce healthcare costs. "Recent tort reforms, such as Maryland's cap on pain and suffering and the new regulations that require a certificate of merit for an expert witness, have played a major role in lowering Maryland's high malpractice premiums and have led to a decrease in malpractice suits.

"Despite recent reductions," says Lee-Llacer, "malpractice insurance is still high." He is opposed to the estimated $13 million spent each year by American physicians practicing defensive medicine in hopes of avoiding potential lawsuits. This not only escalates healthcare costs but also creates barriers in relationships. "Malpractice lawsuits," he professes, "undermine the very fiber of the relationship between physicians and patients.

"Med Chi is developing legislation to achieve further liability reform through a system that will benefit both physicians and patients by reducing the large number of unjustified suits and by allowing case settlements to reach the patient as quickly as possible, without delays and costly legal fees. Such reforms will end the practice of defensive medicine and ultimately lower the barrier between physicians and their patients."

Physician-Patient Relationships

To Dr. Lee-Llacer, the physician-patient relationship is more important today than ever. "I believe that most Med Chi physicians have an excellent rapport with their patients, but when you factor in increasing government regulations, health insurance requirements and the threat of malpractice with the increasing cost of healthcare, the barrier between physicians and patients becomes more pronounced."

Dr. Lee-Llacer stresses the importance of maintaining the basics of good relations with patients by being courteous and attentive to patients' needs. "Patients appreciate physicians who greet them by name, listen actively to their problems, explain their treatments clearly, and respond to their questions. As we enter the 1990s, increasing medical technology may dehumanize medicine. It is every physician's responsibility to insure that their patients feel cared for."

Membership

"The 1990s hold many changes for medicine," asserts Dr. Lee-Llacer. "There will be changes in our nation's medical system, changes in medical technology, and changes in medical treatments. I cannot predict all that will happen, but I am confident in the leadership of Med Chi and the American Medical Association. The Faculty's Council and the House of Delegates are composed of leaders elected by each component society. These leaders represent all Maryland physicians and have their eyes on a vision of tomorrow."

In addition to a strong leadership, Dr. Lee-Llacer emphasizes that all Med Chi members need to be involved. "Organized medicine is intended to represent the interests of all Maryland physicians," reminds Lee-Llacer. "The membership plays an essential role in building the future of medicine. Med Chi represents all Maryland physicians. To accurately represent their opinions, every physician must participate either at the component level or at the state level. By working with each other, we can decide and direct the future of medicine together."

* * * * *

Early Life History

Born in the town of San Fernando in the Province of Mabate in the Republic of the Philippines, Dr. Lee-Llacer was never in love with the idea of becoming a doctor. "I wanted to study at the Philippine Military Academy or the United States Military Academy and go into a military career, but my parents sent me to medical school." He attended the University of Santo Tomas in the Philippines and, after several "tedious" years of study, he graduated in 1958.

Because the residents of his home island of Ticao needed a physician and refused to accept a physician not from the island, Dr. Lee-Llacer became one of Ticao's three municipal health officers. An employee of the government, Dr. Lee-Llacer's main function was to help his countrymen survive diseases like tuberculosis in a place where people die daily from pneumonia and flu. Dr. Lee-Llacer affirms that his experiences during his three-year term as a medical health officer were very rewarding for a young physician.

During his tour, he helped manage a typhoid fever epidemic as well as an outbreak of cholera. "Many people died," recalls Dr. Lee-Llacer. "I saw many of my friends come in sick when an hour before they were fine. We did not have much medicine or antibiotics so wehad to rely on hydration to get people well."

Since Ticao did not have a hospital, the Philippine health department during his second year as a health officer ordered Dr. Lee-Llacer and his chief, Victor Butalid MD, to establish an emergency hospital. With medical equipment they found or created, they set up a makeshift hospital in Philippine Congressman Emilio Espinosa's house. New medical instruments were rare in the Philippines, so they borrowed most of the hospital's instruments and constructed several retractors from forks and spoons. Despite their resourcefulness, the hospital lacked many necessities. There were no x-rays and no sophisticated laboratory equipment. Patients with stab wounds to the kidney had an entire kidney removed to stop the bleeding.



Reynaldo Lee-Llacer MD performs surgery on a patient in the Philippines.

General anesthesia was nonexistent. Dr. Lee-Llacer was forced to rely on local anesthetics for all procedures. Unless they fainted, patients remained awake for all operations.

Dr. Lee-Llacer recalls a young man who was brought to the hospital after his face was hacked by a machete. The cut was across the bridge of the nose, across the malar bone, exposing his maxillary sinus. "The fragment of cheek bone was flapping downward across his face exposing a large hole. We cleaned the wound with Zephiran solution because it was the only antiseptic we had in the hospital. I began to infiltrate the area with Xylocaine until I ran out of it. I flipped the fragment back into its anatomical position. When I began to place sutures, there was no anesthetic left. The patient and I cooperated to finish the task, and I bandaged the area. He went home in three days. Six months later he came up to me at a cockfight and said, 'Doctor, don't you recognize me? I was the one with a cut in the face.' When I looked at his face I could not see a scar."

The most common traumatic injury in the new hospital was from dynamite blasts. Dynamite fishing was an illegal but often used practice among Filipinos. Fishermen mixed dynamite into a bomb that exploded in the water and killed any fish in the area. Oftentimes it was the fishermen and not their catch that would become the dynamite's victims, and they were rushed to the hospital for emergency treatment.

Dr. Lee-Llacer recalls another patient who was preeclamtic. "It was during a typhoon. When the wind brewing outside became extraordinarily strong, the patient went into convulsions and labor pains. We brought her to our delivery room and delivered the baby. Just after the birth, the convulsions stopped, and the patient was well. Suddenly, the typhoon blew off the roof of our hospital and the lights exploded. We were in complete darkness, sopping wet. We delivered the placenta in complete darkness."

Internship and Residency

In 1962, Dr. Lee-Llacer came to the United States to complete his internship and began his surgical residency at Prince George's General Hospital in Cheverly, Maryland. In 1967 he began his fellowship in Shock Trauma at the Shock Trauma Unit and at the Pulmonary Physiology Laboratory at the University of Maryland Hospital in Baltimore. Two years later he was appointed as House Surgeon for the Fairfax Hospital in Falls Church, Virginia.

He served at Fairfax until 1970 when he opened a private surgical practice in Clinton, Maryland. He became a Fellow of the American College of Surgeons in 1973 and is also a Fellow in the Southeastern Surgical Congress as well as the American Society of Abdominal Surgeons. He is board certified in General Surgery.

Professional Endeavors

Although caring for patients is his primary concern, Dr. Lee-Llacer has shown profound interest in all facets of the medical community and has taken an active role in medicine at all levels.

At the county level, he served on the Executive Board of the Prince George's County Medical Society for six years where he was elected to serve subsequent terms as Treasurer, Secretary, and President-elect. In 1983-1984 he became President of the Society. In addition, Dr. Lee-Llacer was appointed chairman of several county and local hospital committees.

As a result of his outstanding work in Prince George's County, he was voted to the Med Chi Council in 1984. The following year, he was named Med Chi's third vice-president and became Med Chi's second vice-president in 1986. After a successful term, the Council elected him as vice-chairman and then chairman where he served from 1986-1988. In 1989, he became Med Chi President-elect.

In addition to his work in organized medicine, Dr. Lee-Llacer is a member of the Board of Physician Quality Assurance and was a commissioner with the Commission on Medical Discipline from 1983 to 1988. He was a Governor's appointee to the Maryland Shock and Trauma Negotiating team from 1984 to 1986.

At the national and international levels, Dr. Lee-Llacer is a member of the American Medical Associa-



Dr. Manuel Gonzales and Dr. Zorayda Lee-Llacer care for a patient during a physician volunteer medical mission to the Philippines.

tion and serves on the board of Governors for the Association of Philippine Surgeons in America where he was elected Governor in 1986 and was vice-president in 1986-1987. He is also a member of the governing board of the Society of Philippine Surgeons in America and a member and past-president of the Philippine Medical Association of Metropolitan Washington, DC. All these organizations work to provide medical care for Philippine citizens and frequently send teams of volunteer physicians on medical missions.

Philippine Medical Missions

Dr. Lee-Llacer has returned to the Philippines on several of these missions. On one trip, he worked in conjunction with the Philippine Medical Foundation, Inc., a nonprofit organization whose aim is to provide charity, education, and medical care to indigent patients. "There were many patients there with cleft palates and cleft lips," says Dr. Lee-Llacer. "I am not a plastic surgeon and had no experience in plastic surgery, but I could not send them home. I selected five patients on whom I believed I could satisfactorily perform the operation, which I did."

In 1988 the Philippine Medical Association of Metropolitan Washington, DC dispatched a group of physician volunteers to the Philippine Province of Sorsogon on the southern tip of Luzon island. Dr. Lee-Llacer was part of a small medical team who saw over 300 patients and operated on over 55 cases in a four-day period.

"When we left the area, there were still many patients waiting for care," comments Dr. Lee-Llacer. "We felt badly because we could not accommodate them all. Those who we could operate on had an expression of silent gratitude in their eyes. Those unable to receive an operation were very disappointed. I expected them to react that way. I told them that we would come back, and we shall."

Another Philippine medical team trip is planned for December 1990. However, when Dr. Lee-Llacer returned for a brief family visit in March 1990, many townspeople came to request medical treatment. He diagnosed and treated more than 30 patients in one day.

Family Life

Dr. Lee-Llacer's strong allegiance to Philippine culture is evident in his family life. "I believe in the closeness of the family," he explains. "I think that family should take care of each other. One responsibility that the family must perform is that the younger should take care of the older. The parents should take care of the young; and the young, when they become parents, should take care of their older people. I do not believe that the place for the elderly is in a nursing home. The family should take care of them."

Dr. Lee-Llacer and his wife Zorayda have five children. He describes his children as a well-mannered, refined group and praises their accomplishments, "I believe we have raised a good group of kids that we can be proud of. American kids that will help America.



The Lee-Llacer family: Standing (l to r) Jason, 14; Manuel, 26; Cheryl-Ann, 22; Carl, 16; Sitting: (l to r) Reynaldo Lee-Llacer MD; Zorayda Lee-Llacer MD; Renaldo, 21.

"As a family, we enjoy each other," comments Dr. Lee-Llacer. "We like to watch professional football games, especially when the Redskins play." Other Lee-Llacer family hobbies include skiing, swimming, and photography.

Goals as President

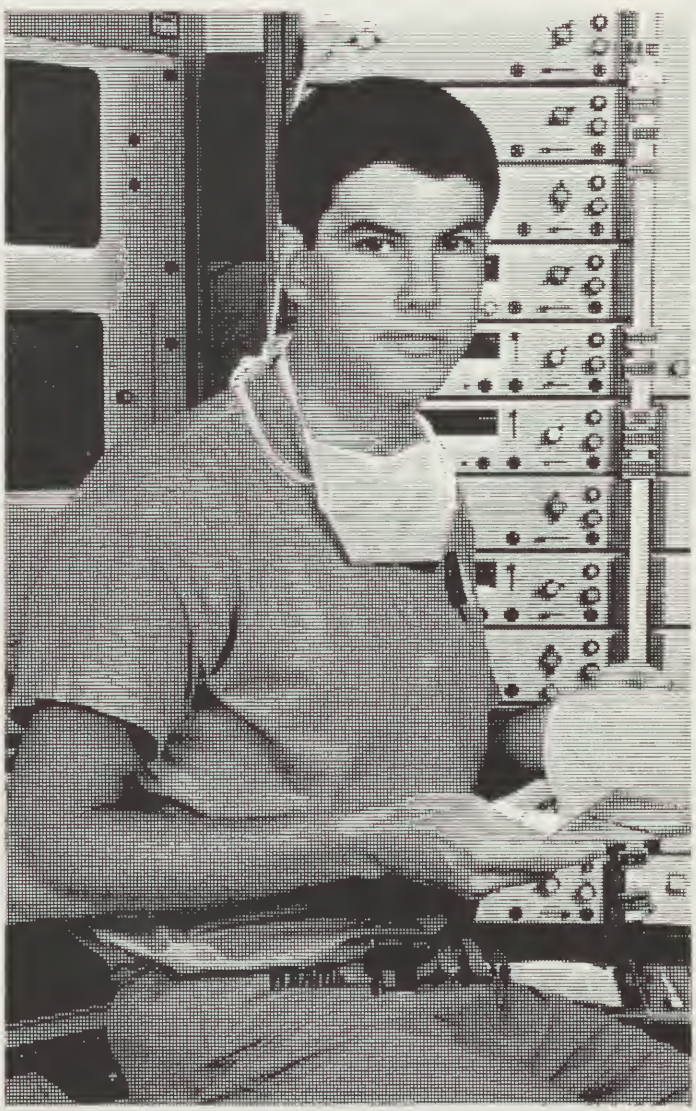
Dr. Lee-Llacer looks forward to the continuation of Med Chi successes during his term as President. "Med Chi is one of the oldest state medical organizations in the country. We can attribute many of our greatest accomplishments to our past-presidents," says Lee-Llacer.

"We can expect many changes in our healthcare system during the decade to come. During my year as president of Med Chi, I intend to inform the membership about these changes, and I will do my best to preserve and protect the quality of medicine practiced in Maryland." ■

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Estimates of Public Costs for Teenage Childbearing in Baltimore City in FY 1987

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In 1987 Baltimore City spent about $179,500,000 on AFDC, Medicaid, and food stamps for families that were begun when the mother was a teenager. Had all these births been delayed until the mother was at least 20 years old, Baltimore would have saved almost $72,000,000 in public outlays.

Teenage parenthood may be both the cause and the consequence of impoverishment, unemployment, unstable families, and decreased life opportunities. To better understand the impact of adolescent parenthood, the Baltimore City Health Department undertook an analysis of the public costs of adolescent childbearing in Baltimore City. These costs were estimated using a computerized set of procedures developed by the Center for Population Options in Washington, DC.[1]

Great attention has been paid to the issue of teenage parenthood in Baltimore and in the entire United States. Although concern appropriately focused on the personal and individual effects of adolescent parenthood, the populationwide impact may be more easily quantified. Four types of costs can be linked to teenage parenthood. The first two are the so-called intangible costs: they profoundly affect people and society, but they are difficult to quantify in economic terms. First are the *personal* costs that may result from high-school dropout and the ensuing loss of opportunity and income, from single parenthood, and from the truncating of life plans. Second, the *social* costs of teenage childbearing are composed of the aggregate of these individual losses combined with the overall impact on the social fabric of large number births to young parents. Although careful socioeconomic analyses have shown that teenage motherhood is primarily a symptom of low socioeconomic status, adolescent parenthood also can serve as a contributing factor to poverty.

The third and fourth consequences are tangible costs that can be measured in dollars and cents. The third group are the *private* costs, those shouldered by the extended family and friends of the teen parent. Grandparents and other relatives may bear the burden of childraising through direct expenses until the adolescent is able to provide for his or her new family. These private costs may occur instead of (or in addition to) public expenditures. In many cases, grandparents may be unaware of or impeded from receiving public assistance for raising poor children.

Finally, the fourth set of costs (and the focus of this article) are the *public* costs incurred by adolescent childbearing. For Baltimore City, these major public expenditures include three

programs: Aid to Families with Dependent Children (AFDC), Medicaid, and Food Stamps. Three types of public expenses can be calculated: "single year costs," the annual public expenditure for families begun by a teenage parent; "single birth costs," the total average public cost of raising a child (to adulthood) born to a teenage mother; and "single cohort costs," the aggregate, 20-year cost of raising all children born to teenage parents in a given year.

For a city of its size, Baltimore has one of the highest rates of adolescent parenthood in the country. In 1987, there were 13,463 live births to Baltimore residents; 3,093 or 23 percent of these births were to mothers 19 years old and younger and over 10 percent were to mothers under 18. Over 40 percent of all first births were to teenage mothers, and 27 percent of teen births were repeat births.[2]

Baltimore historically has experienced exceptionally high rates of teenage parenthood. In 1963, 23 percent of live births were to teenagers, a rate that climbed to 31 percent in 1975. Although the proportion of children born to adolescents has declined since the mid-1970s, it remained steady at 23 percent from 1985 to 1987. Indeed, the proportion of first births and the percentage of repeat births to teenagers have been increasing in the last few years. Moreover, the proportion of births to unwed teenage mothers has been increasing steadily from approximately 25 percent in 1963 to over 91 percent in 1985.[3] This trend is important because unmarried teens have even less family support than married teen parents.

For the entire United States, 13.1 percent of live births in 1984 were to a teenage mother, with approximately 5 percent to mothers aged 17 and younger. Twenty-four percent of all first births in 1984 were to adolescents.[4] Compared to five other developed countries, the United States has a substantially higher teenage birth rate at every age, with the most marked differences in the youngest age groups. For example, the teen parenthood rate at age 14 is more than four times higher in the United States than in Canada, the only country that begins to approach US rates. Moreover, availability of public assistance cannot explain the high teen birth rate in the US; on the contrary, the US provides by far the least amount of public welfare assistance among industrialized nations.[5] Poverty and unemployment rates, however, are significantly higher among American teens, serving as the principal antecedent to high teen parenthood rates.

Our study estimates the public costs for adolescent child bearing in Baltimore City for fiscal year 1987, the most recent year for which statistics are available.

Methods

The Bureau of School and Adolescent Health Services of the Baltimore City Health Department recently conducted a study to determine the public costs for teenage child bearing in Baltimore City in FY 1987. The research methodology is based on a set of procedures developed by the Center for Population Options (CPO) in Washington, DC.[1] The Center is a nonprofit, national organization that works with schools, clinics, policy makers, and religious organizations in developing strategies to prevent teenage pregnancies.

Using CPO's format for data collection and analysis, three different sets of costs have been calculated. The first, "single year costs," quantifies the amount of money Baltimore City spends on teenage child bearing in a given year. The total public outlay in a given year includes expenses for all families started by teenage mothers, that is, in which the first birth occurred when the mother was a teenager, even though the mother may now be considerably older. Specifically, the public expenses include the expenditures for Aid to Families with Dependent Children (AFDC), Medicaid, and food stamps for families begun by a teen mother. The figure includes direct payments to individuals and service providers, as well as the administrative costs of these programs. It should be noted, that the resulting number represents only minimal public costs: it does not include other services such as housing, special education, child protection services, foster care, day care, and other social services. Private costs (for example, costs borne by relatives or private organizations) are not included. Also excluded from the calculations are intangible or indirect costs such as loss of future income resulting from missed educational opportunities.

The information on public expenditures was obtained from a number of different city and state agencies: Baltimore City Department of Social Services, Baltimore City Health Department, State of Maryland Department of Health and Mental Hygiene, and State of Maryland Department of Human Resources. Each agency was contacted both in writing and by phone to confirm the accuracy of the information they provided. In addition, where possible, the statistical and annual reports used by the various agencies to calculate the data were obtained.

To determine "single year costs," the percent of AFDC families headed by women who started their family as teenagers is used as a multiplier. As local data were not available, the national figure of 53 percent provided by CPO was used. The figure for Baltimore is undoubtedly higher because teen birth rates in Baltimore are substantially higher than national rates; over 40 percent of all first births in Baltimore are delivered to teenage mothers.[2] Nationwide, only 25 percent of first births are delivered to teenage mothers.[4]

The second public cost calculated for Baltimore City represents the amount expended over a 20-year period for a single family begun by a teen birth. These "single birth costs" provide an estimate of what a family begun by a first birth to a teenager in a given year will cost the public by the time that baby reaches adulthood. The calculations take into account expenditures for AFDC, Medicaid, food stamps, public housing, and social services. The resulting number is *average* cost of a single

family begun by a teen birth. Two out of three teen mothers do *not* receive public assistance. This estimate also takes into account the possibility that an adolescent mother eventually will be able to find employment and no longer need public assistance.

To arrive at a figure, only first births are considered, and the costs of subsequent births are then added to the cost of the family begun by a teenage mother. An early first birth increases the probability that a woman will have more children than average. Teenagers who have their first birth before the age of 18 will have 2.1 children by age 22, 2.8 children by age 27, and 3.2 children by age 32. Those who have their first baby at 18 or 19 will have 1.6 children by age 22, 2.4 children by age 27, and 2.8 children by age 32. These figures are used to calculate annual average increases in family size that, in turn, are used to calculate the number of family members eligible for benefits and future medical expenses associated with pregnancy and child bearing.

In calculating "single birth costs," teenage girls aged 14 and younger, aged 15 to 17, and aged 18 to 19 are considered separately. All future costs are discounted to the value of 1987 dollars. Discounting deflates projected future costs by the amount that money invested now could earn by that year, adjusting for inflation. Four percent is used as the discount rate.

The final cost determined for Baltimore City is the "single cohort cost." This figure represents the cost of all families begun by births to teenagers in a given year up to the time that those babies reach adulthood. As with the "single birth cost," only first births are considered, and the costs of probable subsequent births are then added to that family's costs. The same age groupings and discounting procedures used to calculate "single birth costs" are used to calculate "single cohort costs."

Even if all teenage mothers were able to delay their first birth until age 20, some of these families would still require public support. The CPO methodology includes a procedure useful for assessing the amount of money Baltimore City would have saved in public expenditures if all teenagers who had given birth in FY 1987 had delayed giving birth until they reached at least age 20. In most cases, efforts to prevent teen pregnancies will only delay births until the woman is in her twenties. Thus, these savings are only 40 percent of the full cost (a percentage derived by CPO) because even if births are delayed, most women will have children, and many will still require welfare assistance. However, the likelihood of requiring public assistance is reduced substantially if the first-time mother is over 20 years old.

Results

In FY 1987 Baltimore City spent $179,469,186 in AFDC, Medicaid, and food stamps on families that were begun when the mother was a teenager (Table 1). Had all these births been delayed until the mother was 20 or older, Baltimore City would have saved $71,787,674 in FY 1987. A local figure for the percentage of AFDC families started by teenage mothers was not available, so the national estimate of 53 percent was used. Based on Baltimore demographics, a local estimate clearly would exceed the figure based on national data that was used. Thus, these calculations significantly underestimate the public costs to Baltimore City.

For the category "single birth costs," a figure was calculated for each of the three age groups: 14 and younger, 15 to 17, and 18 to 19. It was found that a family begun by a first birth to a teenager aged 14 and under in FY 1987 in Baltimore City will cost the public $20,394 over the next 20 years (Table 2). If this birth had been delayed, Baltimore City would have spent $8,156 less over the next 20 years. The same calculations revealed that a family begun by a first birth to a teenager aged 15 to 17 in FY 1987 will cost $20,341 over the next 20 years. If this birth had been delayed, there would have been an $8,136 reduction in public outlays during the same two decades. For teenagers 18 to 19 the public expenditures would reach $12,871 over the next two decades, whereas $5,150 less would have been allocated over the next 20 years if the teenage birth had been delayed. An average figure for all teenagers aged 19 or less would be $16,766, with corresponding savings of $6,706. Again, one must recall that the "single birth costs" represent a figure averaged over all births to teenagers, two-thirds of whom will not require public assistance.

The "single cohort costs" for Baltimore City represent the projected public costs for *all* teens having their first births in FY 1987 until those babies reach adulthood. Using CPO's methodology it was calculated that all families begun by teen births in FY 1987 in

Table 1. Estimate of Public Outlays in 1987 Attributable to Teenage Child Bearing for Baltimore City and Maryland[1]

Funding Source	Total Outlay for AFDC Recipients	Outlay Attributable to Teenage Child Bearing[2]
Baltimore City		
AFDC	$164,494,304	$87,181,981
Food Stamps	60,905,921	32,280,138
Medicaid	113,220,881	60,007,067
Total	338,621,113	179,469,186
Maryland[3]		
AFDC	287,000,000	152,000,000
Food Stamps	83,000,000	44,000,000
Medicaid	238,000,000	126,000,000
Total	606,750,000	321,580,000

1. Single Year Cost in 1987 dollars, including administrative costs.
2. Based on the assumption that families begun by a teen birth consume 53 percent of these funding streams.
3. Estimates from Adolescent Pregnancy in the South. Washington, DC: Southern Regional Project on Infant Mortality, 1988;April:29.

Baltimore City will cost $37,907,298 over the next 20 years in 1987 dollars. If these births had been delayed, Baltimore City would have saved $15,162,919 over the next 20 years in 1987 dollars.

In each case, the full costs represent the actual cash expenditures that will be borne by the public as a result of teen child bearing. The marginal costs (or potential savings of 40 percent of the full costs if pregnancies were delayed until a woman reached age 20) provide a more realistic picture of the actual costs attributable to teenage child bearing. Even with postponed births, most women will have children, and some of them will still require public assistance.

Discussion

Our calculations demonstrate that the 1987 public costs of teenage parenthood in Baltimore City are substantial. We estimate "single year costs," the total annual public outlay for families begun by a teenager, at $179,469,186. The "single birth cost," the amount spent to support a family begun by an adolescent parent over a 20-year period, is gauged at $16,766. The "single cohort costs," the public expenditures for all families begun by a teen mother in 1987, followed until their children reach adulthood (20 years), are calculated at $37,907,298. Table 3 displays Maryland and Baltimore City results, together with the six other national and local studies estimating the costs of teenage parenthood. As in our Baltimore analysis, these studies have calculated three sets of public costs, which include expenditures on AFDC, Medicaid, and food stamps; some of these studies also included other public costs such as housing, special education, foster care, day care, and other social programs. Table 2 delineates the public costs of teenage child bearing by age group for Baltimore City, along with the potential savings (40 percent of full costs) if births had been delayed until after adolescence. Table 1 summarizes the components of public welfare outlays and the associated proportion attributable to teenage parenthood for Maryland and the City of Baltimore.

Our estimates, particularly for single-birth costs, closely follow CPO's study, which generated figures somewhat lower than previous estimates. CPO estimates are lower because legislative changes in the early 1980s made access to public assistance more difficult. Differences between the 1985 CPO estimate and the 1987 Baltimore City estimate can be ascribed to inflation and the greater likelihood that Baltimore City families will receive public assistance. Because of data limitations, particularly the percentage of public assistance families that are started by teenagers, our estimates are probably quite conservative. A better estimate of this percentage and other costs would have

Table 2. Public Cost of First Births to Teenagers in 1986 and Potential Savings Associated with Delaying these Births[1]

	Age at First Birth			
	<15	15-17	18-19	All Teens
First births[2]	119	1,059	1,083	2,261
Single birth				
Full cost	$20,394	20,341	12,871	16,766
Potential savings[3]	8,156	8,136	5,150	6,706
20-year single cohort				
Full cost (in thousands)	2,427	21,541	13,939	37,907
Potential savings (in thousands)	971	8,616	5,576	15,163

1. 20 year projection, covering the years 1987-2006. cost is expressed in 1987 "present value" dollars: this is the amount that would have to be set aside in 1987 to cover the 20-year cost of families begun by a first birth to a teen in 1987, after taking into consideration inflation and the future earning power of a dollar invested in 1987.
2. 1987 natality statistics are the latest available.
3. Calculated at 40 percent of full cost.

Table 3. Summary of Public Cost Estimates for Teenage Childbearing from Local and National Studies[1]

Study	Single Birth Cost	Single Cohort Cost (in millions)	Single Year Cost (in millions)
Baltimore City (current analysis)	$ 16,766	$ 37.9	$ 179.5
SRI International[1]	18,710	8,300	not estimated
Mecklenburg Co., NC[2]	13,852	12	not estimated
St. Louis[3]	17,675	82	not estimated
Moore, Wertheimer and Holden[4]	not estimated	not estimated	8,550
Wertheimer and Moore[5]	not estimated	not estimated	5,830
Monroe Co., NY[6]	not estimated	not estimated	1977 26 1978 24
CPO[7]	13,902	5,160	16,650
Maryland[8]	not estimated	not estimated	321.6

1. For US as a whole; expressed in present value 1979 dollars.
2. For Mecklenburg County (Charlotte), NC; expressed in present value 1979 dollars.
3. For St. Louis City and 8 surrounding counties; expressed in present value 1981 dollars.
4. For the US as a whole, expenditures estimated for 1975, in 1975 dollars.
5. For the US as a whole, expenditures estimated for 1990, in constant 1982 dollars, incorporating the more restrictive eligibility criteria for welfare programs legislated by the Omnibus Budget Reconciliation Act of 1981 (P.L. 97-35).
6. For Monroe County (Rochester), NY; actual expenditures for 1977 and 1978.
7. 1985
8. 1986

increased our overall cost estimates by 20 to 60 percent.

Methodological Considerations

When analyzing the aggregate public costs of teenage parenthood, one must bear several issues in mind. First, the expenditures calculated above include only the most direct forms of subsidy to families begun by teenagers: AFDC, Medicaid, and food stamps. Other costs that were not considered almost certainly play a role in the public support for teenage child bearing: housing, special education, foster care, day care, child protective services, and other social services.

It is essential to remember that the figures calculated represent the *average* costs incurred by overall teenage child bearing, not the actual outlays to individuals. *Two-thirds of teenagers giving birth do not receive public assistance.* Thus, the amount $20,341 is assigned to the total public cost of a birth to a 15 to 17 year old, but two out of three such families do not require public assistance. The cost per actual recipient of public assistance would be three times this figure or over $60,000 by the time the child reaches adulthood.

One crucial data element for Baltimore City was not available: the percentage of families on welfare begun by teenagers. This data element is a multiplier used in each estimate of public costs that was calculated. In its place the corresponding national estimate derived by CPO was used: 53 percent. This is undoubtedly an underestimate. Nationwide, 24 percent of first births in 1984 were to teenagers,[4] while in Baltimore over 39 percent of first births were to teenagers in 1985.[3] Presumably the correct estimate of welfare families begun by teenagers in Baltimore City lies between 60 and 80 percent. The three estimates for public costs of teenage parenthood would be correspondingly 20 to 60 percent higher. Collection of this data by social service providers in Baltimore would facilitate future estimates of these costs.

Finally, an important issue is whether to calculate the actual total public costs attributable to teenage parenthood or to determine how much *more* a birth to a teenager costs than a later birth. Although teenage parents incur public costs at a higher rate than older parents, the latter group also retains some likelihood of becoming recipients of government support. The difference between the two sets (the marginal cost) represents the amount that could be saved if the teenager delayed childbirth until later years. CPO recommends calculating the marginal costs of adolescent child bearing as 40 percent of the full costs; thus, the public could expect to save 40 percent by completely eliminating teen births.[1]

Table 4. Consequences of Teenage Parenthood

Health risks and outcomes
Maternal morbidity and mortality
Prematurity/low birthweight babies
Miscarriages/stillbirths/abortion
Early childhood injury/hospitalization
Educational attainment
Lower likelihood of obtaining h.s. diploma/college diploma
Diminished educational achievement/motivation
Increased dropout rate/decreased school performance for fathers
Family structure and family size
Higher rates of marital failure
Closer spacing of births/higher rates of unintended births
Work status and income
Higher unemployment rates
Lower wages
Low job satisfaction ratings
More likely to be in single-income families
Disproportionately dependent on public welfare for income support/Medicaid
Outcomes for children of teenage mothers
Greater risk of low academic achievement
Increased social, behavioral, and emotional problems
Higher likelihood of becoming teen parents
Diminished family stability

Source: Consequences of adolescent child bearing. In Hayes, CD. Risking the Future: Adolescent Sexuality, Pregnancy and Childbearing Vol I. Washington, DC: National Academy Press, 1987.

Social Consequences of Teenage Parenthood

In 1968, Arthur Campbell offered this description of the consequences of teenage childbearing:

> The girl who has an illegitimate child at the age of 16 suddenly has 90 percent of her life's script written for her. She will probably drop out of school, even if someone else in her family helps to take care of the baby; she will probably not be able to find a steady job that pays enough to provide for herself and the child; she may feel impelled to marry someone she might not have otherwise chosen. Her life choices are few, and most of them are bad. Had she been able to delay her first child, her prospects might have been quite different.[6]

While Campbell clearly overstated the case (his remarks were founded on little empirical evidence) adolescent child bearing may have profound social consequences on the life course of a young woman.[7] Subsequent studies have corroborated some of Campbell's statements, drawing clear links between adolescent parenthood and lower socioeconomic status, poorer educational attainment, and health and developmental risks for mothers and their families.[4] In the long term, however, these patterns tend to ameliorate. Recently published longitudinal research has revealed that a "substantial majority" of teenage mothers eventually receive a high school diploma, find regular work, and attain economic independence, even if they were once dependent on public assistance.[8]

Nonetheless, the social consequences of unintended teen births remain far reaching, at least in the short term.[4] For the adolescent parent, marital patterns tend to be less stable, subsequent fertility higher, educational attainment lower, and labor force participation less favorable for persons who experience first births as teenagers rather than at older ages.[6]

Much of the impact on employment is a direct consequence of the young mother's inability to finish her education. Children of adolescent mothers are more likely to endure poor social and educational outcomes

and more likely themselves to become adolescent parents. Finally, the children of adolescent mothers are more likely to grow up in large, poor, single-parent households, with less parental attention and lower expectations of achievement.[9] Conversely, the circumstances of poverty and unfavorable life prospects make parenthood a more viable option for socioeconomically disadvantaged youths.

The immediate medical consequences of teen child bearing also can have profound long-term effects. First, the teen mother may herself suffer from adverse health effects, including higher rates of pregnancy complications and higher maternal mortality. She is more likely to have recourse to abortion. Teen mothers are more likely to deliver low birthweight babies and to experience elevated levels of infant mortality. Late enrollment in prenatal care, frequently associated with teenage pregnancy, creates a suboptimal condition for childbirth and child rearing.

Adolescent parenthood results in adverse economic circumstances for the individuals involved and for society at large. Child care for working women is difficult to secure, and many women are forced to remain in the home when they might prefer to work.[9]

Teenage fathers also are likely to encounter unfavorable economic circumstances. Fathers who support their offspring may have to drop out of school to work full-time. Because the image of fatherhood remains paradoxically inconsistent with the notion of fathering, many adolescent males do not financially or emotionally support their families. Instead, female-headed families often must rely on other relatives or state assistance to help make ends meet. The father's absence may create a tremendous psychological burden on all parties.

Conclusions

Given the enormous public costs of teenage child bearing and the potential public savings of reducing or eliminating adolescent births, an examination of the means of preventing teenage parenthood is warranted. First, an analysis of the expenditures, expectations, and cost effectiveness of teenage pregnancy prevention programs is necessary. Compared to the annual outlays of $179,469,186 for families begun by teenagers, public expenditures for prevention are limited. Maryland is reputed to spend more state funds on gypsy moth eradication than on public programs for adolescent pregnancy prevention.[10] Moreover, it is essential to realize that reproductive health initiatives are most successful when enacted in conjunction with the development of fulfilling work prospects for teenagers of disadvantaged backgrounds. This second component, while a seemingly unwieldy and even daunting task, serves as the crucial complement to the behavioral change strategies promoted by the health department.

In the end, pregnancy prevention efforts directed toward teenagers may lessen the public costs of child bearing but will not result in the disappearance of government support for raising children. However, delaying parenthood until the mother reaches her twenties may have other beneficial effects. Teenagers may remain in school longer. Their job prospects may improve. Increased educational opportunities for teenagers may lead to a rise in earning potential and financial security. The stability of families may be enhanced. The self-esteem and life prospects of young men and young women may be strengthened. Conversely, improved career and life opportunities for teenagers suffering from socioeconomic discrimination undoubtedly will reduce teen parenthood rates as well as numerous other social problems over the long term. The "return rate" for public investment in both socioeconomic progress and primary prevention will accrue not only to the public treasury but also to thousands of young families.

References

1. Burt MR. Estimates of Public Costs for Teenage Childbearing: A Review of the Recent Studies and Estimates of 1985 Public Costs. Washington, DC: Center for Population Options, 1986.
2. Bureau of Information Resources Management. The 1987 Preliminary Vital Statistics Report. Baltimore City Health Department, November 1988.
3. Bureau of Information Resources Management. Vital Statistics 1985. Baltimore City Health Department, 1987.
4. Consequences of adolescent childbearing. In Hayes, CD. Risking the Future: Adolescent Sexuality, Pregnancy and Childbearing Vol. I. Washington, DC: National Academy press, 1987.
5. Jones EF et al. Teenage pregnancy in developed countries: determinants and policy implications. Fam Plann Perspect 1985;17(2):53-63.
6. McCarthy J. Social consequences of childbearing during adolescence. March of Dimes Birth Defects Foundation: Original Article Series 1981;17(3):107-22.
7. Card JJ, Wise LL. Teenage mothers and teenage fathers: the impact of early childbearing on the parents' personal and professional lives. Fam Plann Perspect 1978;10(4):199-205.
8. Furstenberg FF, Brooks-Gunn J, Morgan SP. Adolescent mothers and their children in later life. Fam Plann Perspect 1987;19(4):142-51.
9. Hofferth SL. Social and economic consequences of teenage child bearing. In Hayes CD, Hofferth, SL. Risking the Future: Adolescent Sexuality Pregnancy and Childbearing: Working papers and Statistical Appendixes. Vol. II Washington, DC: National Academy Press, 1987.
10. New wave of teen births. The Baltimore Sun 1989:Nov 1. ■

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Focus Review: An Old Concept Revisited

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Medical students throughout the world learn clinical skills in a physical diagnosis course. Clinicians can use this approach to design a focus review to serve as a method of evaluation in the quality assurance of healthcare and as a research tool.

Monitoring and evaluation of the quality of healthcare in the United States was formalized by The American College of Surgeons (ACS) in 1919. In 1951, the ACS encouraged additional professional organizations to participate in their Hospital Standardization Program and thereafter formed the Joint Commission on Accreditation of Hospitals(JCAH).[1] The JCAH's Agenda for Change during the next several years encourages institutions to identify clinical indicators and provide criteria statements. The federal government, state legislatures, and medical specialty organizations also are requiring qualitative and quantitative measurements in healthcare quality.

Risk Management, Utilization Review, and "Focus Review"

In 1983 the JCAH began a major endeavor to have hospitals integrate all activities of Quality Management: quality assurance, risk management, and utilization review. During the past three years, Quality Management also has come to the legislative forefront: a multitude of federal and state legislation requires qualitative and quantitative measurements in healthcare quality.

The Health Care Finance Administration (HCFA) has been releasing the mortality data of hospitals based on reimbursement claims from Medicare and is attempting to release physician-specific statistics based on this data. Unfortunately, their data is difficult to validate and will be used to evaluate physician performance by Diagnosis Related Group (DRG) and outliers[2] without consideration of comorbidities and severity of illness. Claims data have not proved an effective measurement of medical practice.[3-5] The Health Care Quality Improvement Act of 1986 (QIA)[6] provides for the establishment of a national clearinghouse for malpractice and disciplinary data on physicians. Several states including Maryland and California have also passed legislation requiring hospitals to report disciplinary actions to the state medical boards. Credentials ultimately are tied to the quality of care given in Maryland House Bill 560. Each hospital is required to

keep active risk management files on each physician. Prior to renewing privileges the hospitals are required to contact each institution where the physician has been granted privileges.

Table 1. Components of the Medical History* and Author's Suggested Methodology for Focus Review Design

PATIENT HISTORY & PHYSICAL EXAMINATION	FOCUS REVIEW CONCEPTS	FOCUS REVIEW TO EVALUATE PULMONARY EDEMA
I. Identification and Vital Statistics	I. Identification of population, size, diagnoses, time period, sampling method, and data sources.	I. Sample Definition - All patients diagnosed with pulmonary edema - list by age, admitting service and identification number.
II. Informant and relationship to patient	II. Person to coordinate Focus Review and Quality Assurance/ Utilization Review Coordinator	II. Data Abstractor: abstract data is clinically involved in the area of specialized practices.
III. Chief Complaints	III. Problem/indicator driving the Focus Review (Statistical Trends)	III. In a 3 month experience, 20% of the patients were diagnosed with pulmonary edema as a secondary diagnosis.
IV. Present Illness	IV. Identification of problem, justification for evaluation, expected impact on health care or validation of outcome	IV. Patients requiring loop diuretics to be evaluated: A. Observe trends in nursing care and documentation, medical practice, and disease process using pre-set criteria.
V. Past History a. General Health b. Infections c. Operations and injuries d. Previous hospitalizations e. Systems Review	V. Review of indicators: Orders, treatment plan, diagnostic tests, intervention, risk factors, physical examination findings and diagnosis.	V. Note if the following are documented: A. Pituitary lesion B. Cardiac disease C. Lung disease D. Renal disease E. Review of IV orders 1. I & O by M.D. 2. I & O by R.N. 3. Time order written 4. Time executed F. Identification of pulmonary edema: Yes or No 1. Time of Identification 2. Treatment of pulmonary edema
VI. Social History	VI. Identification of practice trends that precipitate indicators for focus review that can be altered.	VI. Previous Trends A. Patients previous hospitalization complicated by pulmonary edema
VII. Family History	VII. Predisposing factors that impact patient care. i.e. Practice patterns.	VII. B. Primary nurse or nursing unit has several patients with pulmonary edema. C. Physician has several patients with hospital courses complicated by pulmonary edema.
VIII. Physical Examination	VIII. Observed Outcomes Findings, Chest X-Ray, and other diagnostic tests.	VIII. Physical Examination Electrocardiogram, Arterial Blood Cases, Echo Cardiogram, Swan Ganz Monitoring, and Central Venous Pressures.
IX. Therapeutic Intervention	IX. Intervention to Improve Outcomes	IX. Intervention to Decrease the Incidence of Pulmonary Edema A. Profile and Identify patients at risk for developing pulmonary edema. B. Identify patterns of nursing or physician management that result in an increased risk of developing pulmonary edema. C. Decrease health care cost by taking preventative measures in high risk patients and improving nursing and/or physician management of these patients.

* As outlined in Degowen EL, Degowen RL. Bedside Diagnostic Examination. New York: Macmillan Publishing Co., Inc., 1976.

It is imperative that institutions develop objective tools to evaluate the structure, process, and outcome of healthcare. The use of implicit and explicit criteria in measuring the quality of care has been debated for more than a decade.[7-9] Donabedian believes that explicit criteria are predictable, consistent, and fair.[8,10] Optimally the clinician will view these tools as a logical and useful measurement of their management of disease. The focus review audit can be designed using explicit criteria and serve as a tool to evaluate the quality of healthcare.

Focus Review

The Joint Commission on Accreditation of Health Care Organizations (JCAHO) has devoted its resources to encouraging the "Monitoring and Evaluation of the Quality and Appropriateness of Care" in hospitals, hospital outpatient facilities, and health maintenance organizations (HMO).[11-16] The concept of the "focus review" can be used to fulfill the requirements of the JCAHO as well as federal and state quality assurance watchdogs. Focus reviews can identify problems, determine their causality, evaluate deficiencies in healthcare delivery and achievement of therapeutic outcomes, or validate suspected trends in practice. The task of the healthcare organization and provider is to review data, analyze trends, and develop a review methodology (focus review) to validate their perception of the problem and to determine actions to remedy the deficient practices. This review process also can be used to validate outcomes obtained from DRG data and as a management tool in granting hospital privileges.

We suggest the above process is analogous to the basic skills and logic required in physical diagnosis. Clinicians can use this approach to design a focus review to serve as a method of evaluation in the quality assurance of healthcare and as a research tool.

Medical students throughout the world learn their clinical skills in a physical diagnosis course. The focus review application to risk management, quality assurance, and utilization review is an extension of the principles learned by physicians early in their medical school education. The *Bedside Diagnostic Examination* by Elmer L. Degowen MD and Richard L. Degowen MD[17] will be used by the author to incorporate the principles of physical diagnosis in the construction of a focus review. The content of the focus review must be refined and adapted just as one would alter the approach taken in examining a schoolchild, athlete, or adult or when examining a patient with an upper respiratory infection, metastatic cancer, acute abdomen, or trauma. In designing a focus review the

physician must identify the objectives of the evaluation. As in physical diagnosis, the focus review should not be broad based but specific to a particular problem or area of concern. For example, the clinician would require explicit data when examining and evaluating the causality of different approaches and outcomes, surgical complications, efficiency of patient follow-up, validity of transfusion therapy, or the practice of diagnostic laboratory evaluation.

Role of Focus Review in Quality Management

Let us compare the basic concepts of physical diagnosis outlined by the Degowens[17] and the role of the focus review in Quality Management. These concepts may be used to design a sample review that also will fulfill the Ten-Step Monitoring and Evaluation Process proposed by the JCAHO.[6]

Degowen and Degowen define the search of clues in the diagnostic examination as the "random probing here and there with meticulous scrutiny, looking for diagnostic symptoms, signs, or laboratory findings."[17] Focus reviews are based on the random probing of a specific problem with a set of predetermined indicators. As with physical diagnosis, certain indicators will require the physician to design more specific profiles as the problem becomes more defined through the review. Using this technique in Quality Assurance may result in the establishment of a more finite list of indicators and thereby enable the clinician to clearly identify the problem and take appropriate effective action.

The "Certainty of the Diagnosis" section of Degowen and Degowen addresses the lack of an accepted scale of "degrees of certainty whereby the examiners can express the extent to which he had proved his diagnosis."[17] Terms such as preventive diagnosis, probable or working diagnosis are frequently used. The primary and secondary diagnosis also may differ depending on the physician examining the patient. Unfortunately, indicators will vary between specialties as will the priority of diagnosis. Quantification may indeed need to be specific to the specialty or subspecialty when designing the focus review. For example, an intraoperative bladder cystotomy during a cesarean section will be treated differently from the same complication during a tumor debulking procedure for ovarian carcinoma. The clinician must consider the patient population, the clinical setting, and the nature of the clinical specialty being examined when designing the focus review indicators.

The importance of statistics in physical diagnosis is not helpful if there is a bad outcome or a rare disease that affects only a few patients; examining trends or occurrences in mixed populations can be misleading.[17] This is important to remember when evaluating healthcare. For example, if the number of patients who fall in a particular unit is com-

Table 2. Problem: Increased incidence of patients discharged with a secondary diagnosis of pulmonary edema.

HYPOTHESIS:
1. Physical profile of a population at risk for pulmonary edema has not been identified.
2. The increased incidence as a comorbidity has extended (LOS) Length of Stay and cost of hospitalization.
3. The increased incidence is attributable to "speed shock" (Inappropriate Bolus of Fluid resulting in overload) or administration of incorrect intravenous fluid which increases the potential risk status of the hospital.
4. Inappropriate fluid management by medical staff is contributory to comorbidity.

METHOD: Use of matrix analysis to determine confounding variables and achieve multiple outputs.

FOCUS REVIEW

Patient Identifier: Date:
Hospital #: Nursing Unit:
Primary Nurse:
Admitting Physician:
Data Abstractor: House Staff Officer:
Admitting Diagnosis:
OR Procedure: Date:
Operative Time:
Estimated Blood Loss:
Intraoperative Fluid Profile:
Medications on Admission:

		Yes	No
Past Medical History	1. Pituitary Lesion	___	___
	2. Cardiac Disease	___	___
	3. Lung Disease	___	___
	4. Renal Disease	___	___
	5. Other	___	___

Loop Diuretic Administered for Pulmonary Edema/Fluid Overload Yes ___ No _____ (If yes continue Focus Review)
Attending _____ House Officer _____

Pulmonary Edema Diagnosed by:
Nurse _____ Attending _____ House Officer _____

Date/Time of Diagnosis:
Initial Complaint or Symptom:
Physical Examination: 1. Basilar Rales: Yes ___ No ___
2. Jugular Venous Distention: Yes ___ No ___
3. S_3 Gallop: Yes ___ No ___
4. Other _____

Intake and Output (I&O) orders written by M.D. Yes____ No____
Intake and Output (I&O) documented by Nursing. Yes____ No____
Time orders written _____ Executed_____
Intravenous fluid ordered with Rate _____
Rate fluid Administered per 8 hr shift _____
0700-1500 1500-2300 2300-0700

(24 hr prior to diagnosing Pulmonary Edema)

12 hr Intervals: C.C.	4 hr Intervals: C.C.	2 hr Intervals: C.C.
12 AM - 12 PM	12 AM - 4 AM	12 AM - 2 AM
12 PM - 12 AM	4 AM - 8 AM	2 AM - 4 AM
	8 AM -12 PM	4 AM - 6 AM
	12 PM - 4 PM	6 AM - 8 AM
	4 PM - 8 PM	8 AM - 10 AM
	8 PM - 12 AM	10 AM - 12 PM
		12 PM - 2 PM
		2 PM - 4 PM
		4 PM - 6 PM
		6 PM - 8 PM
		8 PM - 10 PM
		10 PM - 12 AM

		Yes	No
Cardiac Disease:	A. Myocardial Infarction (Confirmed)	___	___
	1 Prior to Admission	___	___
	2. Since Admission	___	___
	B. Valvular Disease	___	___
	C. Collagen Vascular Disease	___	___
	D. Hypertension	___	___
	E. Cardiac Medications	___	___
	F. Diuretics	___	___
	G. (Specify E & F)	___	___

Objective Measurements:
CXR _____ EKG _____
Arterial Blood Gases _____ ECHOCARDIOGRAM: _____
Swan Ganz Monitoring: PCW___ CVP ____ SVR ____
Central Venous Catheter: CVP _____

Treatment: Diuretic Therapy: _____
Admission to ICU: Yes____ No____
CVP Placement: Yes____ No ____
O_2 Administered: Yes____ No ____
I.v. Therapy Changed: Yes ____ No ____
Rate: _____ _____
Fluid: _____ _____

Length of Stay (LOS) A. DRG LOS: _____
B. Patient LOS: _____
C. Reimbursement by Third Party: _____
Loss of Revenues ((B-C) X Cost per day: _____

parable to other units in the hospital, one tends to fail to identify falls as an area of concern. The focus review can be used to identify those patients at greatest risk and help to decrease the absolute number of patients who fall, thereby providing the specificity needed to uncover a true area of risk. Consider a department such as Obstetrics and Gynecology, with a very low overall rate of falls and resultant morbidity when compared to the hospital population. A focus review to evaluate patient falls can be designed to identify the subpopulation at risk. In the department of Obstetrics and Gynecology, the majority of patients are young, healthy females. A small subpopulation of patients in the Gynecologic Oncology Division, however, may be at an increased risk of falling attributable to a number of variables including analgesics, postoperative response to radical operative procedures, the effects of a chemotherapeutic regimen, malnutrition, and the impact of a progressive neoplastic disease.

Methodology

Focus review methodology is similar to the

> prerequisites for diagnostication...Acquisition from preclinical courses... acquisitions from clinical courses and exposure... and acquisitions of skills from practice."[17]

Although focus reviews designed by different clinicians may share many similarities, they are distinct in that they reflect the designers' clinical knowledge and experience. Therefore we strongly recommend that if a physician or nurse is designing a focus review, they incorporate input from other departmental resources and ancillary personnel to assure completeness of approach and to diminish the potential for skewed results.

The basic fundamentals taught medical students in a physical diagnosis course are used to design a focus review to evaluate pulmonary edema in Tables 1, 2. These indicators can be expanded to evaluate patients who have had pulmonary edema secondary to a myocardial infarction after admission. As in the example above, the indicators list can be made as finite as required for the subject being evaluated. This sample audit evaluates physician and nursing clinical practice as well as documentation practices. If required, additional focus reviews can be designed to comprehensively examine practice patterns.

In conclusion, the focus review is an old concept revisited. Its construction is similar to the approach taken in physical diagnosis that is familiar to all physicians and health care providers. As Quality Assurance is stressed by the JCAHO in their Agenda for Change, clinicians will be required to utilize Quality Management programs. Specialty organizations such at The American College of Obstetricians and Gynecologists[18] have stressed the importance of Quality Assurance, the use of clinical indicators and criteria statements. The focus review can be used to evaluate structure, process, and outcome. Although a simple tool, the focus review also can be used as a research method, a management tool, or an instrument to assist in evaluating cost/benefit analysis.

References

1. Roberts JS, Coale JG, Redman RR. A history of the joint commission on accreditation of hospitals. JAMA 1987;258:936.
2. McMahon LF, Newbold R. Variation in resource use within diagnosis related groups: The effect of severity of illness and physician practice. Med Care 1986;24:388-97.
3. Bunker JP, Fowles J. Medical audit by claims data? Am J Pub Health 1985;75:1261-62.
4. Blumbert MD. Comments on HCFA hospital death rate statistical outliers. Health Services Res, 1987;21:715-39.
5. Wennbert JE, Roos N, Sola L, Schori A, Jaffe R. Use of claims data systems to evaluate health care outcomes: Mortality and re-operation following prostatectomy. JAMA 1987;257:933-36.
6. Nelson S. Physician data bank details still undisclosed. Hospitals 1987;61:63-64.
7. Mattson MR. Quality assurance: A literature review of a changing field. Hospital Comm Psychiatry 35:605-16.
8. Donabedian A. Advantages and limitations of explicit criteria for assessing the quality of health care: Milbank Health and Society 1981;99-106.
9. Brook RH, Appel FA. Quality of care assessment: Choosing a method for peer review. N Engl J Med 1973;288:1323-29.
10. Donabedian A. The quality of care, how can it be assessed? JAMA 1988;260:1743-48.
11. Joint Commission on Accreditation of Health Care Organizations. Accreditation Manual for Hospitals, 1989. Chicago, IL: JCAHO, 1988.
12. Joint Commission on Accreditation of Health Care Organizations. Examples of monitoring and evaluation in obstetrics and gynecology. Chicago, IL: JCAHO, 1988.
13. Joint Commission on Accreditation of Health Care Organizations: Medical staff, monitoring and evaluation: Departmental review. Chicago, IL: JCAHO, 1988.
14. Joint Commission on Accreditation of Hospitals Health Care Organizations. Risk management and quality assurance: Issues and interactions. QRB 1986.
15. Traska MR. Quality of care will receive greater emphasis: O'Leary. Hospital 1986;60:67-69.
16. Joint Commission on Accreditation of Health Care Organizations. Monitoring and evaluation of the quality and appropriateness of care. A hospital example. Chicago, IL: JCAHO, 1988.
17. Degowen EL, Degowen RL. Bedside Diagnostic Examination. New York: MacMillan Publishing Co., Inc., 1976.
18. Quality assurance in obstetrics and gynecology, American College of Obstetricians and Gynecologists: Task force on quality assurance. ACOG,1989.

Bibliography

Burda D. Physician data base spurs legal, ethical debate. Hospitals 1987;61:56.

Cardellino H. Quality assurance from a process audit approach. Nurs Manage 1986;17:55-58.

Donabedian A. Criteria and standards for quality assessment and monitoring. QRB, 1986;12:99-108.

Inglehart JK. Congress moves to bolster peer review: The health care quality improvement act of 1986. N Engl J Med 1987;316:960-64.

Luft HS, Hunt SS. Evaluating individual hospital quality through outcome statistics. JAMA 1986;255:2780-84.

Riffer J. AMA plans targets bad physicians. Hospitals 1986;60:69.

Ware JE. Monitoring and evaluating health services. Med Care 1985;23:705-709.

Case Report: Gamma-Globulin Treatment of Severe Varicella-Associated Thrombocytopenia

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Treatment of varicella-associated thrombocytopenic purpura has included platelet transfusions, prednisone, and more recently intravenous gamma globulin, whose efficacy in this condition is not widely appreciated.

Thrombocytopenia purpura has long been known to sometimes follow viral illness, such as varicella. We report the treatment of a case of severe post-varicella thrombocytopenia with intravenous gamma-globulin.

Case Report

A seven-year-old male developed typical chickenpox seven days before admission to the hospital. Two days before admission he sustained a fall from a skateboard that resulted in a bruise to his right side. His mother noted progression of the bruises following the fall. Past history had been unremarkable in all respects, and family history was negative for hematologic or collagen disease. Upon presentation to the office on the day of admission, exam showed widespread petechiae, scattered ecchymoses, and a ragged clot on the left buccal mucosa. Laboratory data showed a white count of 8.08 thousand with 73 percent segs, 20 percent lymphocytes, 4 atypical lymphocytes, 1 monocyte, 1 eosinophil, and 1 basophil. Hematocrit was 42.5 with normal indices, and platelet count was 1,000. Prothrombin time and PTT were normal, and there was gross hematuria.

Treatment consisted of administration of seven (7) units of platelets and the administration of 20 grams of gamma globulin intravenously over four to six hours. Sequential platelet counts are noted in Figure 1. Hematuria had diminished to trace positive by dipstick by the fourth day of hospitalization, and there was no hematuria by the fifth day, the day of discharge. Weekly platelet counts were performed for six weeks as noted in Figure 2. There was no secondary fall in platelet count.

Discussion

Treatment of thrombocytopenic purpura has included platelet transfusions (the efficacy of which has been limited by the shortened survival time of platelets in this disease) prednisone, and more recently intravenous gamma globulin.

The first published report of the use of gamma globulin in the treatment of thrombocytopenic purpura appeared in 1981,[1] and

Figure 1. Platelet Count as a Function of Time

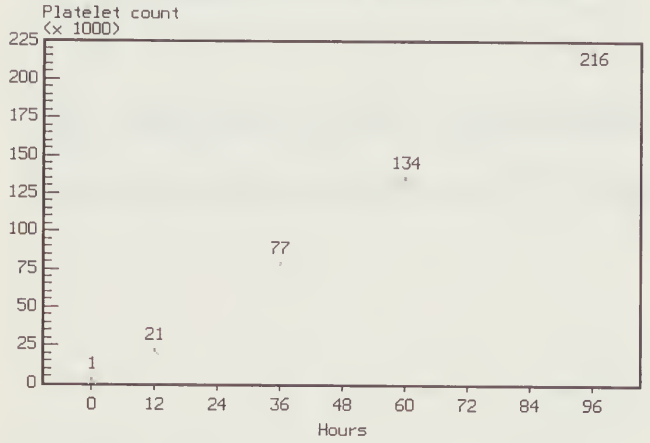
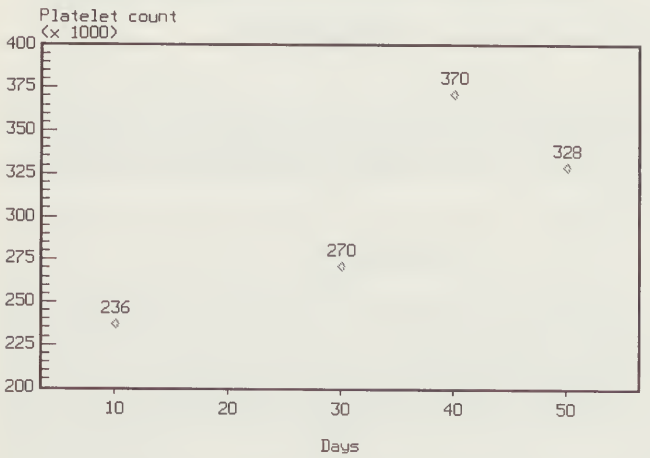


Figure 2. Platelet Count as a Function of Time



since that time multiple reports have documented the efficacy of this treatment. A detailed review by Bussel and Hilgartner of the use of intravenous immunoglobulin for this condition in childhood appeared in 1987, [2] and the reader is referred to this article for discussion of possible mechanisms of action of gamma globulin.

Gamma globulin was first reported as a treatment for varicella-associated thrombocytopenia by Dituro and associates in 1986.[3] Hara et al. also reported treatment of a single case.[4] We elected to administer a dose of one gram per kilogram body weight.

While the prognosis of thrombocytopenic purpura is usually favorable, deaths have been reported.[5-7] Children especially at risk may include those with widespread petechiae, mucosal hemorrhage, and hematuria.[2]

We wish to alert the practicing pediatrician to the usefulness of gamma globulin in post-varicella thrombocytopenia; its efficacy in this condition is not widely appreciated.

References

1. Imbach P, d Apuzzo V, Hirt A, et al. High dose intravenous gamma-globulin for idiopathic thrombocytopenia purpura. Lancet 1981;1:1228-31.
2. Bussel JB, Hilgartner MW. IV immunoglobulin therapy of idiopathic thrombocytopenia purpura in childhood and adolescence. Hematol/Oncol Clin North Am Sept 1987;1(3).
3. Dituro WV et al. IV gamma-globulin treatment of profound herpes varicella zoster-associated thrombocytopenia. Ann Allergy 1986;56:241-43.
4. Hara T et al. IV gamma-globulin therapy for thrombocytopenia associated with active varicella infection. Eur J Pediatr 1987;146:531-32.
5. Yeager AM, Zinkham WH. Varicella-associated thrombocytopenia: Clues to the etiology of childhood idiopathic thrombocytopenia purpura. Johns Hopkins Med J 1980;146:270-74.
6. Charkes ND. Purpuric chickenpox. Report of a case, review of the literature and classification by clinical features. Ann Intern Med 1961;54:745-59.
7. Tobin JD Jr, Ten Bensel RW. Varicella with thrombocytopenia causing fatal intracerebral hemorrhage. Am J Dis Child 1972;124(4):577-78.

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Case Report: Radiologic Diagnosis of Intracranial and Intraspinal Subarachnoid Metastasis from a Malignant Spinal Cord Astrocytoma

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Both CT and MRI demonstrate well the aggressive nature of malignant astrocytoma of the spinal cord, a rare and highly lethal cancer.

Malignant astrocytomas (Kernohan grades III and IV) account for only 7.5 percent of intramedullary spinal cord gliomas. The median age at presentation is 14 years, and the male-to-female ratio is approximately equal. The median survival time from onset of symptoms until death is 11 months. Although metastasis from benign spinal cord astrocytoma (Kernohan grades I and II) is exceedingly rare, approximately 60 percent of patients with malignant spinal cord astrocytomas develop subarachnoid metastasis. This spread is due to invasion of the subarachnoid space by tumor with dissemination of cancer cells via the cerebrospinal fluid (CSF) to the leptomeninges.[1-3]

The present case demonstrates the myelographic, magnetic resonance imaging (MRI), and computed tomography (CT) findings of a malignant spinal cord astrocytoma with intracranial and intraspinal subarachnoid metastasis.

Case Report

A 9-year-old male presented with sudden onset of back pain, urinary retention, and lower extremity weakness. A complete myelogram using water-soluble nonionic contrast medium demonstrated an intramedullary spinal cord tumor at the T-6 to T-8 vertebral levels (Figure 1). The patient underwent open biopsy and partial resection of the lesion, and pathology showed grade III malignant astrocytoma. A postoperative MRI of the spine including a gadolinium-enhanced study demonstrated residual intramedullary cystic spinal cord tumor. An intravenous contrast-enhanced brain CT scan done four days after surgery was normal. The patient underwent radiation therapy to the thoracic spinal cord, and at the time of discharge from the hospital he had residual left lower extremity weakness and a T-8 level sensory deficit.

The CSF cytopathology examination done two months after presentation showed no malignant cells. The patient remained stable until 11 months after presentation when he developed rapid

onset of headache, nausea, and vomiting. A repeat brain CT with intravenous contrast showed intracranial enhancing metastases in the fourth ventricle and the right lateral ventricle (Figure 2). He underwent craniotomy with partial resection of the posterior fossa mass followed by chemotherapy and continued radiation therapy. Pathology of the fourth ventricle mass showed anaplastic astrocytoma identical to the previously resected spinal cord astrocytoma. CSF cytopathology done two weeks after craniotomy was again negative for malignant cells.

One month after craniotomy the patient complained of increased left leg weakness, and an IV-enhanced MRI scan of the spine demonstrated a new subarachnoid metastasis at the L-1 vertebral level (Figure 3).

Discussion

Since CSF cytology has a high incidence of false negatives, radiology plays a crucial role in the diagnosis of primary intraspinal malignant astrocytoma as well as of subarachnoid metastasis to the ventricles or spine.[1] This case demonstrates well the insensitivity of CSF cytopathology and the typical radiologic findings in malignant astrocytoma of the spinal cord.

The patient's myelogram demonstrated a complete block to myelographic contrast and fusiform enlargement of the spinal cord with thinning of the subarachnoid space typical of an intramedullary tumor. A concurrent brain CT scan with intravenous contrast was normal, ruling out primary or metastatic brain neoplasm. Postoperative MRI showed features characteristic of a high grade malignant neoplasm. As is typical in many neoplastic tissues, T-1 and T-2 relaxation times were both increased resulting in decreased T-1 signal and increased T-2 signal on spin echo sequences. Increased T-1 and T-2 relaxation times are due to an increase in free water content in neoplastic tissue as compared to normal tissue.



Figure 1. Myelogram (AP and lateral views of the thoracolumbar region) shows intramedullary tumor with complete block to myelographic contrast (arrow).

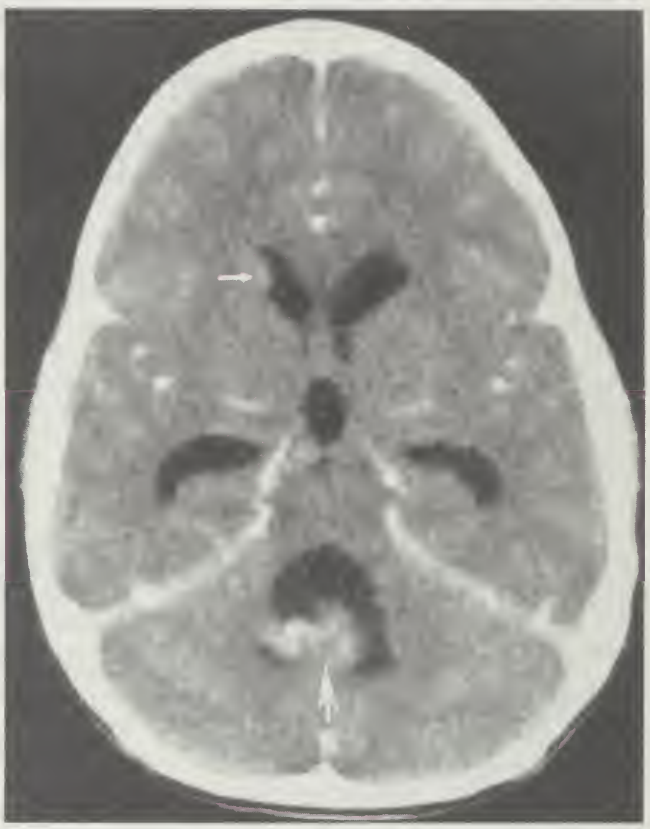


Figure 2. Enhanced brain CT after intravenous administration of diatrizoate meglumine 60 gram-percent shows CSF borne metastases in the fourth ventricle (large arrow) and right lateral ventricle (small arrow) with obstructive hydrocephalus.



Figure 3. Post Gd-DTPA T-1 weighted axial image (TR=600, TE=30) shows enhancing subarachnoid metastasis (arrow) at the L-1 vertebral level.

Intravenous administration of gadolinium diethylene triamine penta-acetic acid (Gd-DTPA, Magnevist) resulted in significant enhancement of the spinal cord tumor and of the spinal metastasis. As with CT contrast agents, the degree of enhancement with MRI Gd-DTPA reflects the grade of the malignancy. High grade cancers form neocapillaries that have fenestrations, and therefore the blood-brain barrier is incomplete, which allows intravenous contrast agents to accumulate in the region of the tumor.[4,5] Similar contrast enhancement of the intracranial metastases was seen on CT.

Opposite to its benign counterpart, malignant astrocytoma of the spinal cord has a strong predisposition to metastasize via the CSF.[2] As in this case, the spinal tumor may spread via the CSF to the intracranial ventricles and to other areas of the spine. Therefore, radiologic evaluation of the entire neural axis with gadolinium-enhanced MRI is recommended at the time of presentation as well as whenever any deterioration in clinical status occurs.

We have shown that both CT and MRI demonstrate well the aggressive nature of this rare and highly lethal cancer. However, since MRI is unhindered by bone artifact, it is superior to CT in evaluating the posterior fossa, brain stem, and spinal cord.

References

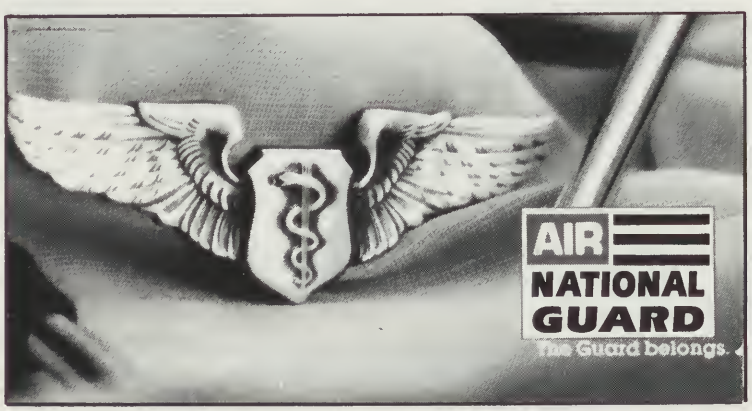
1. Johnson DC, Schwarz S. Intracranial metastasis from malignant spinal cord astrocytoma. J Neurosurg 1987;66:621-25.
2. Cohen AR, Wisoff JH, Allen JC, Epstein F. Malignant astrocytomas of the spinal cord. J Neurosurg 1989;70:50-54.
3. Bell WO, Packer RJ, Siegel KR et al. Leptomeningeal spread of intramedullary spinal cord tumors. J Neurosurg 1988;69:195-300.
4. Graif M, Steiner RE. Contrast-enhanced magnetic resonance imaging of tumors of the central nervous system: A clinical review. Br J Radiol 1986;59:865-73.
5. Sage MR. Blood-brain barrier: Phenomenon of increasing importance to the imaging clinician. AJNR 1982;3:127-38.

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Case Report and Review of Literature: Hypernatremia in Breast-Fed Infants

Fred J. Heldrich MD and Sandy Sunghee Shaw MD

From the Department of Pediatrics, St. Agnes Hospital, Baltimore, where Dr. Heldrich is Chairman.

Hypernatremic dehydration in breast-fed infants is preventable, requiring adequate instruction of mothers prior to hospital discharge and close follow-up after leaving the hospital.

Breast-feeding of newborns is enjoying a resurgence and is strongly advocated as the best food source available for healthy, term neonates.[1] In making this statement one assumes the mother is healthy, is not taking foods or drugs that might be harmful to the infant when transmitted via breast milk, has been adequately advised about the technique of breast-feeding, and is given appropriate follow-up surveillance by a capable healthcare provider. Even then (as in circumstances noted in this report) there may be qualitative abnormalities in the breast milk that may affect the infant adversely, particularly if adequate postpartum care is not provided. Our experience with two patients who presented with hypernatremic dehydration plus a review of 14 other patients reported in the literature supports this contention.[2-10]

Case Reports

Patient 1 A 3.67 kg male had been delivered vaginally following an uncomplicated gestation. He was discharged at seven hours of age on breast feeding. The mother's health was good, and this had been her first pregnancy. She was taking no medications. There were no significant familial illnesses. At three days of age when seen for his metabolic screening, he weighed 3.34 kg, and was said to be nursing every 3 or 4 hours although he would occasionally refuse a feeding. From the ninth day, he fed only 2 or 3 times a day and began to sleep through the night except for occasional whining. He continued to urinate 5 to 6 times and pass 2 or 3 soft, brown stools every day.

The mother noted weight loss and called a representative from a breast-feeding advocacy group who assured her that "everything was fine." There was no vomiting, cough, respiratory complaint, or fever. On admission, he was 17 days old and was dehydrated and lethargic but irritable when aroused. Skin had loss of elasticity, the anterior fontanel and eyes were sunken, and he had poor skin turgor. Temperature 36.5° C, P 148/minute, R 44/minute BP 70/? mm Hg, wgt 2.67 Kg. Lungs were clear, and heart sounds were of good quality. The abdomen was scaphoid. Testes were descended bilaterally and he was uncircumcised.

Laboratory studies revealed sodium 171 mEq/L, chloride 131 mEq/L, potassium 4.1 mEq/L, CO_2 25 mmol/L, blood urea nitrogen 61 mg/dl, creatinine 1.5 mg/dl, serum glucose 83 mg/dl, calcium 12.1 mg/dl, and phosphorous 4.2 mg/dl. Hemoglobin was 16.4 gm/dl, hematocrit 49.7 percent, white blood cell count 12,900/cu mm, 24 percent polymorphonuclear leukocytes, 5 percent bands, 50 percent lymphocytes, 9 percent monocytes, 1 percent basophiles, and 1 percent eosinophiles. Liver function studies were within normal limits. Total protein was 6.8 gm/dl. The cerebrospinal fluid (CSF) contained no cells and was sterile. A blood culture showed no growth. The urine had a specific gravity of 1.020, contained white blood cells too numerous to count and yielded over 100,000 colonies of *Escherichia coli* per cu mm. An intravenous pyelogram and voiding cystourethrogram were normal.

Therapy was begun with ampicillin and gentamicin and rehydration was accomplished slowly using a solution containing 0.2 percent NaCl in 5 percent glucose. Clinically, the patient responded well. Analysis of the mother's breast milk revealed a sodium concentration of 61 mEq/L, but her supply was abundant. Three days later, the sodium content was 11 mEq/L, and the patient resumed breast-feeding. He was discharged in good health on the seventh hospital day, weighing 3.16 Kg. Initial laboratory findings and response to therapy are shown in Figure 1.

Patient 2 A 15-day-old female was admitted to the emergency room hypothermic, cyanotic, and dehydrated. She had been delivered vaginally following a normal gestation, weighing 3.12 kg. Family history was not significant. The mother's health had been good, and she was taking no medications. The infant was discharged on breast-feedings. The parents had planned to have the infant seen in two weeks by a physician who had not seen her during the hospital stay. The infant nursed every 3 to 4 hours, and the mother felt she had an adequate supply of breast milk. There was no evidence of mastitis. There was no history of vomiting, diarrhea, or polyuria. The mother was unaware of any difficulty, and felt she had a "good baby."

Twenty-four hours prior to admission the infant was noted to be lethargic and sucked poorly. Urine output was diminished. Stools had been occurring 3 or 4 times per day, but she had had none in the prior 24 hours. On presentation to the emergency room, she was cyanotic. Her pulse of 118 was thready, respirations 18/min, and temperature 36° C, BP 54/30 mm Hg, and weight 2.1 kg. Dehydration was assessed as 15 percent and fluid resuscitation was accomplished with Ringer's lactate solution, resulting in improvement in clinical status. Specimens for cultures of blood, urine, and CSF were obtained. Serum electrolytes revealed: sodium 208 mEq/L, potassium 7.7 mEq/L, chloride 163 mEq/L, CO_2 26 mmol/L, blood urea nitrogen 298 mg/dl, creatinine 7.8 mg/dl, glucose 278 mg/dl, calcium 10 mg/dl. Hemoglobin was 16.8 gm/dl, hematocrit 51.4 percent, platelets 52,000/cu mm, and white blood cell count 17,000/cu mm, polymorphonuclears 39 percent, bands 1 percent, lymphocytes 53 percent, monocytes 4 percent. CSF revealed 4 red blood cells, 22 white blood cells, protein 119 mg/dl, and glucose 260 mg/dl. Urine specific gravity was 1.035. Serum ammonia was normal. Blood culture was positive for *Bacteroides fragilis*. Cultures of CSF and urine showed no growth.

Ampicillin and cefotaxime were begun intravenously and continued for seven days. Repeat blood cultures were negative. Rehydration with slow correction of hypernatremia using a solution containing 0.2 percent NaCl in 5 percent glucose was accomplished with serum sodium returning to normal on the fifth day. Intravenous insulin, 0.5 U/kg, was given twice on day two to lower the blood glucose, which had risen to 666 mg/dl. Blood sugar normalized by day six, creatinine by day seven, and urea nitrogen by day ten. Clinical course was complicated by seizures that began on day one, but they were controlled with diazepam and diphenylhydantoin. Serum calcium remained in normal range. Computerized tomography of the head was normal x 2. A repeat examination of CSF verified the absence of subarachnoid bleeding. A renal sonogram was normal. Sclerema was noted on day three but resolved by day seven. The patient's lethargy gradually improved, and at discharge on day eleven, she was taking 3 to 4 ounces every four hours of a 20 calorie per ounce formula with no other medication. Initial

Figure 1: Patient 1 - Determination of Serum Sodium, Urea, Glucose, and Osmolality

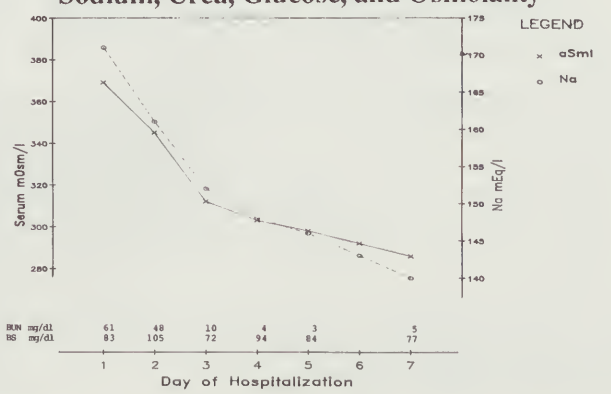
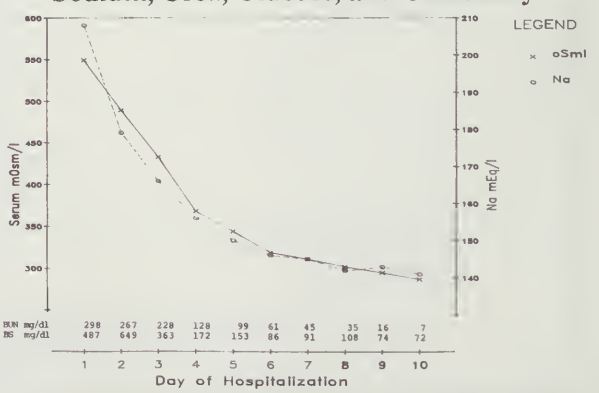


Figure 2: Patient 2 - Determination of Serum Sodium, Urea, Glucose, and Osmolality



laboratory findings and response to therapy are shown in Figure 2.

A sample of the mother's breast milk obtained on day one contained 88 mEq sodium/L. A sample on day seven contained 18 mEq of sodium/L. The infant's state of malnutrition and dehydration was attributed to an inadequate intake of breast milk that contained an excessive sodium content.

Discussion

Until the cause of hypernatremia in our patients was determined, it was necessary to consider multiple potential etiologies. Table 1 summarizes these etiolotic categories.

Errors in formula preparation in a hospital setting,[11] the incorrect dilution of concentrated formula, or the use of boiled skimmed milk have all been known to result in hypernatremia in infants. Breast milk also may contain an excessive level of sodium. An increase in water loss may occur secondary to high ambient temperatures, especially in very small preterm infants. Excessive water loss has been reported in neonates with congenital lamellar ichthyosis.[12] Renal tubular acidosis and diabetes insipidus, either central or renal, may lead to an excessive water loss.[13] Hypernatremia in a neonate has been reported as a result of watery diarrhea due to glucose-galactose intolerance.[14] Infectious diarrhea also may result in hypernatremic dehydration.

While the high concentration of sodium in the breast milk of the mothers provided an explanation for the patients' hypernatremia, the reason for the elevated breast milk sodium was not apparent.

Studies of the electrolyte composition of breast milk in lactating mothers following delivery have shown a mean sodium value of 64.8, ±4.4 mEq/L following delivery, dropping to a mean of 21.4, ±2.3 mEq/L by the third postpartum day. By two weeks, the sodium level in breast milk is 7, ±2 mEq/L. Under normal circumstances, the high sodium content in breast milk for the first few days of the puerperium does not lead to hypernatremia in the infant and may be a defense mechanism during a period of relative thirst and dehydration.[15,16] However, continued intake of feedings with a high sodium content may lead to hypernatremia.

Mastitis has been associated with a high sodium concentration in breast milk, and it has been speculated that mucoviscidosis in the mother may also be a cause. In most instances, the cause remains unknown. None of the recognized causes were present in either mother. Both mothers continued to express milk via a breast pump. In the mother of patient 1, the breast milk sodium returned to normal in three days (postpartum day 20). In the mother of patient 2, the breast milk sodium was 18 mEq/L on the postpartum day 22 and of small volume. Breast-feeding was resumed in the first patient, but formula was substituted in patient 2. Perhaps the inadequate supply of breast milk in the mother of patient 2 contributed to the elevated sodium.

Hypernatremic dehydration in breast-fed infants should be considered preventable. Prevention requires:

1. Awareness of the possibility
2. Adequate instruction prior to discharge and follow-up care
3. Appreciation of signs and symptoms of feeding difficulties.

Reported instances of hypernatremia in breast-fed infants should alert health care providers to this possibility even though it occurs infrequently. Inability of the parents to recognize signs of illness in their infant was a significant factor in patient 2. Insistence on breast feeding at all costs may have led to the advice and false reassurance given the mother of patient 1. Inadequate follow-up was a contributing factor in both patients. Whatever the reason, the importance of maintaining close contact with newborns after discharge from the hospital is supported by these two cases.

Literature Review

A review of 16 reported cases of hypernatremic dehydration in breast-fed infants reveals that certain signs and symptoms occur with significant regularity (Table 2). Twelve of the 16 infants were firstborns, suggesting that a lack of previous experience with breast-feeding may lead to an inability to recognize poor feeding. However, 14 of 16 mothers did indicate that the infant was feeding poorly and was excessively sleepy or lethargic. Despite this, only 2 of the 14 indicated they had sought advice prior to admission. One of the patient's parents had been reassured by a family

Table 1. Differential Diagnosis of Hypernatremia in Neonates: General Etiologic Categories

Excessive sodium intake
Improper formula preparation
Saline enemas
Breast milk
Excessive water loss
Skin
Renal
Gastrointestinal

Table 2. Signs and Symptoms in 16 Breast-Fed Hypernatremic Neonates

Symptoms	Number
1st child	12
Lethargy	14
Poor feeding	14
Oliguria	7
Signs	
Degydrated	16
Emaciated	16
Temp $\leq$ 36° C	7

member, another by a representative of the La Leche League.

In no instance was vomiting or diarrhea noted, and the reduction in urination, although reported by 7 of the 16 mothers, was not noted until 24 hours prior to admission by 4 of the 7 mothers. This is perhaps best explained by noting that extravascular volume is maintained in hypertonic dehydration, allowing glomerular filtration and urine production to continue longer despite the loss of total body fluid.

On examination, evidence of dehydration and emaciation was apparent in all patients. In 7 of the 10 patients with a recorded temperature on admission, hypothermia was present. Significant laboratory findings are summarized in Table 3.

The birthweight of the infants ranged from 2.04 to 4.11 kg (average 3.23 kg). There was a weight loss of from 600 to 1420 gm (average 988 gm). The percentage of weight loss was 24-37 percent (average 30 percent). Undoubtedly, this weight loss was attributable to loss of lean body mass secondary to caloric deprivation as well as water deficit.

Three of the 16 patient reports reviewed revealed an infection: *Staphylococcus aureus* paronychia (1), *E. coli* urinary tract infection (1) and *Bacteroides fragilis* septicemia (1). In none did the infection appear to cause the hypernatremia. Six patients had seizures during the course of treatment. All sixteen patients recovered without sequelae.

The current policy of early discharge of mother and infant, usually before the infant is 48 hours old, limits the period for observation of neonatal behavior and maternal-infant interaction and emphasizes the need of close physician contact during the neonatal period after discharge from the hospital. Situations that frequently require the infant to return are metabolic testing, assessment of hyperbilirubinemia, and as these case reports emphasize, a need to ascertain the adequacy of breast-feeding.

The most reliable preventive measures are undoubtedly the instructions given the mother prior to discharge and the surveillance supplied within the first week of discharge. Proper instruction includes a discussion of breast-feeding techniques, the usual time required to breast-feed and frequency of breast-feeding, the normal response of an infant when hungry, stool and urine patterns, and the assurance that any concerns about feeding should generate a phone call to the physician. Breast-fed infants are best seen at one week of age to insure adequacy of feeding. Adherence to such a policy should eliminate the problem of hypernatremic dehydration in breast-fed neonates.

Table 3. Significant Laboratory Measurements on Admission in 16 Breast-Fed Hypernatremic Neonates

	Patients Abnormal	Range	Average
Serum Na (mEq/L)	16/16	164-208	185
BUN (mg/dl)	16/16	47-298	143
Serum glucose (mg/dl)	4/11	36-336	163
Serum Cr (mEq/L)	12/12	1.0-7.8	3
Serum (OSml)	11/11	367-537	426
Breast Na (mEq/L)	10/10	31-104	58

References

1. American Academy of Pediatrics & American College of Obstetricians and Gynecologists. Guidelines for Perinatal Care 1988.
2. Jaffe KM, Kraemer MJ, Robinson MC. Hypernatremia in breast-fed newborns. West J Med 1981;135:54-55.
3. Arboit JM, Gildengers E. Breast-feeding and hypernatremia. (Editorial correspondence) J Pediatr 1980;97:335-36.
4. Anand SK, Sandborg C, Robinson RG et al. Neonatal hypernatremia associated with elevated sodium concentration in breast milk. J Pediatr 1980;96:66-68.
5. Clarke TA, Markarian M, Griswold W et al. Hypernatremic dehydration resulting from inadequate breast-feeding. Pediatrics 1979;63:931-32.
6. Ghishan FK, Roloff JS. Malnutrition and hypernatremic dehydration in two breast-fed infants. Clin Pediatr 1983;22:592-94.
7. Ernst JA, Wynn RJ, Schreiner RL. Starvation with hypernatremic dehydration in two breast-fed infants. J Am Diet Assoc 1981;79:126-30.
8. Rowland TW, Zori RT, LaFleur WR, Reiter EO. Malnutrition and hypernatremic dehydration in breast-fed infants. JAMA 1982;247:1016-17.
9. Thullen JD. Management of hypernatremic dehydration due to insufficient lactation. Clin Pediatr 1988;27:370-72.
10. Roddey OF, Jr., Martin ES, Swetenburg RL. Critical weight loss and malnutrition in breast-fed infants. Am J Dis Child 1981;135:597-99.
11. Finberg L, Kiley J, Luttrell CN. Mass accidental poisoning in infancy. A study of a hospital disorder. JAMA 1963;184:187.
12. Garty BZ, Wiseman Y, Metzker A et al. Hypernatremic dehydration and hypothermia in congenital lamellar ichthyosis. Ped Dermatol 1985;3:65-68.
13. Bromberger PI, Haddow JE. Hypernatremic dehydration in infancy as a presenting sign of underlying disease. J Main Med Assoc 1979;70:28-29.
14. Steinherz R, Nitzan M, Iancu TC. Hypernatremic dehydration as a sign leading to the diagnosis of glucose-galactose malabsorption in breast-fed neonates. Helv Paediatr Acta 1984;39:275-77.
15. Koo WW, Gupta JM: Breast milk sodium. Arch Dis Child 1982;57:500-502.
16. Ansell C, Moore A, Barrie H. Electrolyte and pH changes in human milk. Pediatr Res 1977;11:1177-79.

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Update on Medical Control in EMS Service

Cardiac Rescue Technicians and Emergency Medical Technician-Paramedics throughout Maryland follow statewide medical protocols in the performance of their duties. These protocols are developed by the Maryland Institute for Emergency Medical Services Systems (MIEMSS) in conjunction with the statewide EMS community and are given final approval by the Board of Physician Quality Assurance, which certifies CRTs and EMT-Ps in a fashion similar to the licensing of physicians.

Prehospital advanced life support care in Maryland involves both "standing orders" and on-line medical direction. Revised protocols became effective January 1, 1990. Copies of the protocols are available in hospital emergency departments and hospital libraries in the state, as well as through the MIEMSS regional EMS offices and from the Office of the State EMS Director.

We want to bring to the attention of the medical community in Maryland new and specific language that clarifies medical control in the "field":

> *Once an EMS unit is on the scene, medical control is provided by a physician through the established EMS consultation system, by a physician who is part of the jurisdictional EMS program, or by the patient's identified private physician who is physically on location and willing to accompany the patient to the hospital. It is important that an atmosphere of courtesy and respect is established between EMS providers and physicians on the scene. Physicians should respect the professionalism of the EMS provider and provide assistance within the above guidelines.*

While many practicing physicians throughout the state are not directly involved in emergency care, it is helpful for all physicians to have a better understanding of emergency medical care in the event that a physician is on the scene of an emergency.

AMEEN I. RAMZY MD, FACS
State EMS Director

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Update on the Board of Physician Quality Assurance

The Maryland Board of Physician Quality Assurance came into existence in the summer of 1988. It combines the duties of the previous Board of Medical Examiners and the former Commission on Medical Discipline. The Board consists of 15 members, 11 of whom are physicians. They meet semimonthly and the average meeting lasts about five hours. The Board's function is to protect the health and safety of the citizens of the State of Maryland. Besides physicians and osteopaths, the Board regulates eight other groups directly: psychiatric assistants, cardiac rescue technicians, aviation trauma technicians, emergency medical technicians (paramedics), acupuncturists, respiratory care practitioners, medical radiation technologists, and physician assistants.

The Board also regulates three groups in conjunction with the Nursing Board: nurse practitioners, nurse anesthetists, and nurse midwives.

The Board is consumer oriented and will let no complaint, regardless of how minor, go unanswered. The Board is backed by staff who have proved exemplary in their work and have left little room for compromise. The State Division of Management Analysis reviewed the Board structure, and much of this article is taken from their report.

In spite of the usual start-up difficulties associated with any large association, a remarkable amount has been accomplished. It was estimated that approximately 800 cases would be reviewed for 1989, which is almost a quarter increase over the previous committee's workload for 1988. In comparison, there were only 400 cases in 1984. This increase is attributed to the better collection of complaints from various sources, including the required reports from all healthcare arbitrations and medical insurance data. It is estimated that there will be 1,200 cases to review in 1990. The Board has a sincere desire to close all cases within one year and the power to reprimand, suspend, or revoke a license.

The Board is not a stand-alone operation but works together with the Attorney General's Office, the Department of Health and Mental Hygiene Hearing Office, and the Medical Chirurgical Faculty of the State of Maryland (Med Chi).

The Board receives about 60 cases a year that are "top priority." For the first nine months of 1989, 24 cases were referred to the Attorney General for prosecution, 15 cases were charged, and 21 hearings were held. There were 7 cases of emergency suspension. It takes the Attorney General's Office about 50 hours to prepare a fraudulent prescription writing case, about 165 hours to prepare an incompetency case, and about 280 hours for a sexual misconduct case.

Here are samples taken from actual cases illustrating the type of problems the Board has evaluated:

- A physician has been charged with unlawful prescription writing, a case involving drugs for sex.
- A physician prescribes medication without the proper work-up.
- Excessive prescribing of controlled drugs for pain management.
- The DEA has revoked the physician's permit to dispense drugs. Should his license be withdrawn?
- Physicians with psychiatric or chemical dependency problems.

- A physician prescribing drugs to known addicts.
- A physician carries out a vaginal exam in a sexually inactive young patient and makes no office record.
- A physician with multiple malpractice claims (as many as 10 in another state) has successfully completed a probation period and now applies for a Maryland license.
- A physician fails to carry out proper radiation doses and hospital privileges are suspended. Should the physician's license be suspended until further training?
- Professional incompetence with loss of hospital privileges. Should license be revoked?
- A House Officer dismissed before his training period expired is now applying for his license.
- What to do with complaints from patients that the physician performed unnecessary lab tests or gave unnecessary and expensive treatment.
- A foreign physician applies for license and there is no way to confirm his completion of medical school or hospital training.
- Several cases against physicians who allegedly grossly overcharge insurance companies.
- Practice of a type of Psychology (Jungean Therapy) without a medical license.
- Medicare and/or Medicaid fraud is a criminal offense. Should a license be suspended or revoked?
- A counseling center charges as if a psychiatrist was present when in fact a psychiatrist no longer supervises the clinic.
- What to do with complaints from patients that the physician performed unnecessary lab tests or gave unnecessary and expensive treatments.
- A physician supervises an acupuncturist by phone only.
- An unorthodox office practice with religious suggestions and/or machines such as ultrasound used for therapy.
- Complaints from one physician that a second physician is treating cancer incorrectly.
- A complaint by a patient's daughter that her elderly mother died of incorrect medication from her physician.
- How to handle problems of bad recordkeeping in hospitals or offices when medical care is satisfactory.
- A physician refuses to allow the State Laboratories Administration to inspect his office laboratory or talk to his lab personnel.
- How to handle physicians who have bad hospital manners but are not medically incompetent.
- What to do with physicians who are employed by HMOs and are therefore limited in their ability to use laboratories and diagnostic tools and consultations that they themselves feel are necessary.

Complaints considered of a minor nature, although a standard may have been violated, make up 55 percent of all new cases. These most frequently are resolved after investigation with a letter of education to the physician and a letter to the consumer explaining that the Board has formally addressed the matter.

As one looks back over the opening year, there is a sense that the job is being carried out with dedication and a feeling of accomplishment.

BERNARD S. KLEIMAN MD

■ ■ ■

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Council - January 18, 1990
381st Meeting

Minutes The Council minutes of November 16, 1989 were approved as submitted.

Committee Reports

Finance Committee Dr. Jose Yosuico, Chairman and Treasurer, introduced a slide presentation, developed by the staff, to enlighten Council of the vast amount of work the staff accomplishes and how the staff is organized.

Dr. Yosuico submitted the Proposed 1990 Budget for approval. Dr. Yosuico pointed out that for the first time the Budget was zero based and contained cost centers. Dr. Yosuico acknowledged the members of the Finance Committee and thanked them for their efforts. Dr. Snyder asked if there would be a dues increase for 1990 to which Dr. Yosuico promptly answered that there would not be a dues increase. Following a brief discussion, the Proposed 1990 Budget was approved as submitted. Dr. Nagel also expressed his thanks for the Committee's hard work.

Committee on Professional Ethics The Committee provided a report regarding the status of the Oregon Medical Association (OMA) and their position relative to the "Death with Dignity Act." As directed by Council at its meeting of November 16, 1989, staff had contacted the Oregon State Medical Society (OMS) and learned that the OMS is not supporting the "Death with Dignity Act" in that state. They have accepted the position of the AMA; that is, physicians should not participate in assisting in the demise of individuals.

Legislative Committee Dr. Susan R. Guarnieri, Chairman, was present to submit the two Committee reports, which were approved, and commented on the Legislative Committee's activities and positive participation. Mr. Gerry Evans presented information on the topics of Mandated Medicare Assignment, Physician Ownership, Health Service Cost Review Commission (HSCRC), and DEA numbers.

Mr. Evans stated that mandated Medicare assignment would be a big hurdle to overcome in Annapolis this year (election year for representatives). Although no bills have been filed, various drafts of a mandated assignment bill have been circulating. Mr. Evans requested that the Council reaffirm its position against mandated assignment by participating in a physician rally in Annapolis scheduled on February 21, 1990. Council approved participation and committed the Faculty to provide whatever was necessary: mailings, transportation, etc. to assure the success of this event.

AMA Interim Meeting A preliminary summary of actions taken by the AMA during its meeting of December 1989 was submitted to Council for its information. The report contained highlights of the AMA House of Delegates deliberations and results of Maryland Resolutions. A complete, formal report will be submitted in the near future. Dr. George S. Malouf, Sr., motioned to support the candidates for positions within the AMA. These candidates were Dr. Ted Lewers for the Board of Trustees, Dr. Henry Wagner for the Council on Scientific Affairs, Dr. Roland Smoot for the AMPAC Board, and Dr. Michael Dobridge for the Council on Long Range Planning and Development. The motion was seconded and adopted. Dr. Lewers thanked the Council for their support and indicated that the action taken to endorse him was gratefully appreciated and would allow him to begin planning with other states to insure that his running for the Board in 2 or 3 years would be the most opportune time, considering competition from other delegations for the same seat.

Committee on Hospital Medical Staffs An updated report of the joint venture between the Maryland Hospital Association and Med Chi (Professional Credentialing Records Service, Inc.) was submitted for Council's approval. The report summarized actions agreed on by both parties during recent discussions. Topics reported on included incorporation of the entity, criteria for the Board of Directors, resources of funding, location of the corporation, software to be used, administrative support, and confidentiality policies. Recommendations on these subjects were approved as submitted. Following this discussion, Dr. Paul Stagg moved and it was seconded for the following six individuals to be members of the newly formed Board of Directors.

Joseph S. Fastow MD
Calvert County - Calvert Memorial Hospital
Leslie R. Miles MD
Allegany County - Sacred Heart Hospital
Marvin Schneider MD
Montgomery County - Holy Cross Hospital
Joseph I. Berman MD
Baltimore City - Columbia/FreeState
Robert J. Mahon MD
Baltimore County - St. Joseph Hospital
Paul A. Stagg MD
Dorchester County - Eastern Shore Hospital Center

Following some discussion, Dr. Bob moved the deletion of Dr. Mahon and the addition of Dr. Ghiladi to that position. Following additional discussion, there was a motion to table this action until the next Council meeting. The motion was seconded and approved.

Emeritus Membership Council approved the following physicians for Emeritus Membership in the Faculty as requested by the component society indicated:

Anne Arundel County
Richard K. Greenbank, *Annapolis*

Ernesto A. Tolentino, *Glen Burnie*

Baltimore City

Morton D. Berkow, *Baltimore*
John T. Johnson, *Baltimore*
H. Joseph Roebber, *Baltimore*

Carroll County

A. Sani Okutman, *Sykesville*

Cecil County

Roy W. Chestnut, Jr., *Baltimore*
Luis M. Cuza, *North East*
John A. Fischer, *Elkton*
Zin U. Park, *St. Augustine, FL*
Christobal Vela, *Elkton*

Montgomery County

Peter P. Andrews, *Bethesda*
Michael M. Healy, *Bethesda*

Affiliate Member

John C. Harvey, *Bethesda*

These names will be presented to the House of Delegates for consideration at its 1990 Annual Session.

Dues Waiver Council approved the following physician for a dues waiver as requested by the indicated component society:

Baltimore City
Patricia A. McIntyre, *Baltimore*

1990 Maryland Health Convocation Upon the recommendation of the Executive Committee, the Council approved the support of the tenth Annual Health Convocation with a contribution of $2,500. After further discussion, it was the consensus of the Council that Med Chi's involvement in the 1990 Convocation could be the concluding involvement in the ten-year history of the Convocation.

Committee on Drugs Staff gave a brief verbal report regarding the importance for physicians to communicate the dangers of the inappropriate use of drugs to their patients and presented a resolution for the Council's consideration. Following discussion and motions for amendment, the amended resolution was adopted as follows:

> RESOLVED, That the Medical and Chirurgical Faculty of Maryland urge all member physicians to inform all patients of the grave consequences of inappropriate drug use; and further, be it
> RESOLVED, That the Medical and Chirurgical Faculty of Maryland urge all physicians to post information on drug abuse in their examination and/or waiting rooms for the information of their patients.

This resolution will be forwarded to the Public Relations Committee for appropriate dissemination.

Prince George's County Medical Society The Prince George's County Medical Society presented a resolution for consideration of Council with the following resolves:

> RESOLVED, That as a measure of good will to all Medicare beneficiaries in Maryland, the Medical and Chirurgical Faculty of Maryland supports the principle of voluntary acceptance of Medicare assignment for any patient who so requests; and
> RESOLVED, That the Medical and Chirurgical Faculty of Maryland urge all of its members to accept all Medicare claims on assignment for any Medicare beneficiary requesting such acceptance.

Discussion on this subject brought to light that this resolution was similar in nature to Med Chi's current policy that physicians should be sensitive to the financial status of all patients including Medicare patients as well as concern about proper health care for all patients. The Prince George's County Medical Society's submission was not adopted. ■

1989 Interim Meeting of the AMA House of Delegates

The AMA House of Delegates met in Honolulu, December 3-6, 1989. This was a very busy meeting, with 187 resolutions and 79 Board and Council reports to consider. The House took positions on some far-reaching issues of vital importance to the practicing physician.

There were 435 delegates seated. The House composition is:

- 347 delegates representing state medical associations
- 78 delegates representing national medical specialty societies
- 10 delegates representing medical students, resident physicians, hospital medical staffs, young physicians, Army, Navy, Air Force, USPHS, and the Veterans Administration

Address of the President Alan R. Nelson, MD, AMA President, declaring that "the AMA works" cited an impressive list of accomplishments as an answer to the proverbial question, "What does the AMA do for me?" He included:

- the defeat of mandatory assignment four times in the past three Congresses
- the fact that the AMA is the world's largest publisher of scientific information
- the defeat of expenditure targets in the budget bill
- the AMA's commitment to NIH funding to protect the stability and integrity of medical research in the U.S.
- the AMA's considerable activities in communicating medicine's story to the public
- weekly news releases to 3,000 reporters
- meeting with editorial boards
- American Medical Television reaches over 50,000 physicians and 800,000 lay people each month
- American Medical Radio News is used by 500 radio stations daily

Dr. Nelson urged the nation's physicians to get involved and join the AMA as "your best investment in the future." He expressed concern that "the frustration and disillusionment being expressed by physicians in America will lead them to throw up their hands in despair rather than raise up their arms in support."

Lauro F. Cavazos PhD, US Secretary of Education Dr. Cavazos addressed the opening session of the House of Delegates. A former medical school dean, Dr. Cavazos declared that "our medical schools are at the forefront of curricular innovation and continue to attract the finest students." He credited the AMA as playing "an essential role in assuring that educational quality is maintained."

Dr. Cavazos called on the delegates for assistance in improving and restructuring our nation's system of education. He said, "without a well-educated citizenry, the United States is in danger of becoming what has been described as the world's only fully industrialized third-world nation."

Dr. Cavazos called for major restructuring of the nation's educational system that provided:

- early childhood education
- safe, drug free schools for all of America's children
- support for teachers from physician volunteers

AIDS The House approved a major policy update on the medical, legal, and social implications of AIDS and HIV infection. The Board report addressed a number of issues related to education, research, national policy, financing media coverage, and the prevalence and incidence of AIDS:

- recommended contact-tracing and notification of needle partners.
- recommended that the AMA Council on Medical Service study the cost of care for patients in each stage of HIV infection and estimate the number of people in each stage now and in five years.
- pledged ongoing support for funding for research, education, and patient care, as well as for alternatives to inpatient care.
- vowed to work with other physician groups, public health officials, and universities to advance training for primary care MDs and specialists.
- encouraged MDs to provide information to patients about HIV prevention and to become more involved in the care of HIV-infected patients.
- endorsed institutional indemnification of medical students and resident physicians infected as a result of patient contact.
- said AMA would consult with appropriate federal agencies and drug manufacturers about the expansion of AIDS drugs.
- urged MDs to take comprehensive and thorough sex and drug histories in a nonjudgmental fashion.
- asked federal and state agencies to establish rigorous proficiency testing and quality control procedures for testing labs frequently and regularly.
- reaffirmed its commitment to mandatory testing of inmates in federal and state prisons and supported mandatory testing of all newborns in high prevalence areas.

In other AIDS-related actions, the House:

- encouraged state legislation to establish requirements for reporting and case follow-up for serious contagious disease, including HIV infection.
- requested that the Food and Drug Administra-

tion address the problem of readable instructions for condoms.

- recommended that the FDA not allow home test kits for HIV.

Drug Abuse in the United States The House considered a Board report and several resolutions related to drug abuse. The report states that America's drug epidemic has evolved in recent years from an urban plight to a national crisis. The Board pledged its continuing involvement in programs to alert physicians and the public to the dimensions of the problem and the most promising solutions. The report recommended that the AMA:

1. Cooperate in activities of organizations such as the National Association for Perinatal Addiction Research and Education (NAPARE) in fostering education, research, prevention, and treatment of maternal drug and alcohol use.
2. Encourage the development of model alcohol and drug treatment programs, complete with an evaluation component, that are designed to meet the special needs of pregnant women through a comprehensive array of essential services.
3. Urge physicians to routinely screen all pregnant women and those of childbearing age for drug and alcohol use, and to follow-up positive screens with appropriate interventions and referrals.
4. Pursue the development of educational materials for physicians and the public on prevention, diagnosis, and treatment of perinatal addiction. In this regard, the Board encourages further collaboration with the Partnership for a Drug-free America in delivering appropriate messages to health professionals and the public on the risks and ramifications of perinatal drug and alcohol use.
5. Urge the National Institute on Drug Abuse, the National Institute on Alcohol Abuse and Alcoholism, and the Federal Office for Substance Abuse Prevention to continue to support research and intervention strategies.
6. Urge that public policy be predicated on the understanding that alcoholism and drug dependence are diseases characterized by compulsive use in the face of adverse consequences.
7. Affirm the concept that substance abuse is a disease and develop model legislation to appropriately address perinatal addiction as a disease, bearing in mind physicians' concern for the health of the mother, the fetus, and resultant offspring.
8. Call for better coordination of research, prevention, and intervention services for women and infants at risk for both HIV infection and perinatal addiction.

In a related action, the House adopted a resolution entitled "Substance Abuse as a Public Health Hazard," that called upon the AMA to:

- recognize that substance abuse is the major health problem in the United States today and that its solution requires a multifaceted approach.
- declare substance abuse its number one public health priority.
- take a positive stance as a leader in matters concerning substance abuse.
- study innovative approaches to the elimination of substance abuse dependencies and their resultant street crime, including approaches which have been used in other nations.

Prevention of Drunk Driving The House adopted a resolution introduced by the Young Physicians Section that addressed the issue of the involvement of alcohol as a leading cause of morbidity and mortality in motor vehicle accidents. The House voted to:

- encourage state medical societies to urge their state legislators to adopt a blood alcohol level of 0.05 percent as per se illegal for driving.
- work with Congress to make federal highway funds to states contingent upon state adoption of a blood alcohol level of 0.05 percent as per se illegal for driving.

Frozen Pre-embryos The House approved a report that discusses the legal and ethical issues created by the freezing of human pre-embryos and offers guidelines as to the rights of the gamete providers and the disposition of the pre-embryos.

ABMS Yellow Page Listing The House adopted a resolution introduced by the District of Columbia Delegation that called upon the AMA to:

- urge the American Board of Medical Specialties (ABMS) to abandon the entreprenеurial endeavor of placing display advertisements in the major Yellow Pages telephone directories where board certified specialists are located.
- insist that truth in advertising demands that ABMS state to all callers that their display listings may not represent a complete listing of all board certified specialists.

Health Insurance Coverage for Uninsured The House adopted a resolution that addressed the problem of having an estimated 37 million Americans without health insurance. Introduced by the American Academy of Family Physicians, the resolution called upon the AMA to reaffirm its support for ensuring access to health care for the uninsured:

- through a combination of employer-sponsored coverage.
- other private approaches such as risk pools and the AMA proposed restructuring of Medicaid and Medicare programs.

Dependent Uninsured Coverage In a related action, the House approved a resolution, introduced by the Hospital Medical Staff Section, calling for an AMA study of the health insurance coverage for the uninsured "dependent" population.

Billing for Cross-coverage A number of resolutions

addressed physician dissatisfaction with the referral of Medicare, Medicaid, and most private payors to allow solo practitioners to bill for services provided by covering physicians.

The House approved a policy calling on the AMA:

> to pursue all appropriate legislative, regulatory, and administrative means to amend or eliminate the inappropriate enforcement of the Social Security Act and/or Medicare regulations in order to make it possible for physicians in solo or group practice to bill and receive payment for professional services to their Medicare patients rendered by colleagues who provide them with traditional short-term coverage.

Funding for the AMA's Physicians' Assistance Program Several state delegations cosponsored a resolution asking the AMA to continue to adequately fund and maintain an impaired physicians program or "Physicians' Assistance Program." The resolution which was adopted as amended directed that the charge of the program will include, but not be limited to:

- promoting state medical society impaired physician programs and medical student impairment programs.
- providing technical assistance to state programs.
- conducting scientific and socioeconomic research.
- hosting an annual conference to share research and exchange ideas on the field of physician impairment.

Resolutions Submitted by Maryland Delegation

Gun Control Resolution #34

RESOLVED, That the American Medical Association use its influence in matters of health to effect passage of legislation in the Congress of the United States mandating a national waiting period that allows for a police background and positive identification check for anyone who wants to purchase a handgun from a gun dealer in our country.

House Action: Adopted, as amended.

Use of Insecticides - Resolution #35

RESOLVED, That the American Medical Association, at once and with the greatest vigor, bring before the members of the Congress of the United States our urgent request to curb the inappropriate and unsafe use of insecticides, fungicides, and other chemicals used to improve or alter the growth of fruits and vegetables; and be it further

RESOLVED, That the safety of these and any other chemicals used in the future be proved before they may be introduced into the food chain.

House Action: The House adopted the Reference Committee's recommendation that Resolution 101, "Effects of Pesticides," be adopted in lieu of Resolution 35. Resolution 101 asks that the AMA urge Congress, the EPA, and other responsible state and federal regulatory agencies to determine the effects of pesticides on humans.

Resolution #36 - Support for Improvement of the Health Environment in Developing Countries

RESOLVED, That the American Medical Association take all possible action to:

1. Encourage Congress to express a strong and clear commitment to continue the promotion of measures to improve child survival and development through long-term health and environmental programs in the poor countries of the world; and
2. Promote in Congress the passage of legislation that will provide tax and other incentives so that American banks, the International Monetary Fund, and World Bank will remit national debts in developing countries on the condition that additional funds in local currency, equivalent to the payments required under current obligations will be allocated to continuing programs for the following activities:
   - Expansion of child survival and nutrition programs.
   - Development of primary health care infrastructure.
   - Initiation and expansion of control efforts against major endemic diseases such as malaria, leprosy, tuberculosis, childhood pneumonia and other infectious diseases.
   - Improvement of environmental conditions to enhance the quality of life and protect local ecology in developing countries where massive environmental deterioration is having both local and worldwide impact.

House Action: This resolution was not adopted, but was referred to the AMA Board of Trustees for action.

Albert M. Antlitz MD, Chairman
Roland T. Smoot MD, Vice-Chairman

Delegates
Donald T. Lewers MD
George S. Malouf, Sr., MD
Michael R. Dobridge MD
John H. Hebb MD
Joseph Snyder MD

Alternate Delegates
Henry N. Wagner, Jr., MD
Alex Azar MD
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Raymond M. Atkins MD
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One Minute With Diabetes

Oral Hygiene and Diabetes

Doctor, although I have not been to this office for a checkup on my diabetes for over a year I have been feeling well and have continued the same insulin routine: 40 units NPH before breakfast and 18 units NPH before supper. I have been too busy to test my blood glucose regularly, but when I do test about once a month, the readings are usually around 200 mg/dl.

I have been seeing my dentist every two weeks for the past two months because of sore and bleeding gums. The dentist said he cannot help my mouth condition until my diabetes is under better control. I do not understand what the relationship is between my mouth problem and my diabetes when I feel OK, but I am here because I am tired of having a sore mouth and my girlfriend said I have bad breath.

The often-used dental statement "Look Ma, no cavities" really should be "Look Ma, no cavities and no gingivitis" if we want to give a good report when we return from a visit to our dentist.

Periodontal diseases (gum infections occurring around the teeth) play a major role in tooth loss. For diabetic patients periodontal disease may be a major complication. About 85 percent of all people over the age of 40 probably have some degree of periodontal disease ranging from mild gum inflammation to severe periodontal disease. Dental plaque, a sticky film containing millions of bacteria, plays a major role in the development of gingivitis and other periodontal diseases.

Periodontal disease is more frequent and severe in people with diabetes and tends to occur at an earlier age. Diabetes causes the blood vessels to thicken, slowing down the transport of oxygen and nutrients to the tissues and waste removal. In the mouth this lowers the resistance of the gums and bony tissues to infection. When diabetes is poorly controlled, high glucose levels in the mouth fluids encourage the growth of harmful bacteria and set the stage for gingival infection, the first stage of periodontal disease.

Poor brushing and flossing habits allow plaque to accumulate of the teeth. Signs of gingivitis are redness and swelling of the gum tissue around teeth. The gums may be very tender and sensitive. Upon brushing the teeth some bleeding often occurs. Untreated gingivitis may progress to destructive periodontitis. Over time, plaque may harden and extend from the gum line down along the tooth root. The gum gradually separates from the tooth forming pockets that can harbor infection that the toothbrush cannot remove. The pockets may fill with pus and cause bad breath, as your girlfriend has called to your attention. Finally, the tooth may loosen and be lost.

What can you do to halt this destructive process? As your dentist has suggested, infection cannot be overcome in the absence of good diabetic control. First you must monitor the blood glucose before each meal and at bedtime. Insulin and food adjustments will need to be made until all the blood glucose readings are in the range of 90 to 120 mg/dl and the glycohemoglobin is within normal limits.

Brushing and flossing of teeth must be done daily as prescribed by the dentist. Brushing is an important step in plaque removal. It should be done twice daily with a soft brush and not too vigorously. Use dental floss at least once every day to remove bacteria and plaque from between the teeth. It is a good practice to brush the upper surface of the tongue. Finish by rinsing the mouth well with water or a suitable mouthwash. People with diabetes should have a dental checkup at least every six months. It is good to have a diabetes evaluation just before each dental checkup so the dentist will have some knowledge of your status before he or she carries out any necessary dental treatment. As with all problems the physician, dentist, dietitian, and health educator should work as a team to insure the best possible care of the patient.

DE WITT E. DELAWTER MD
Editor ■

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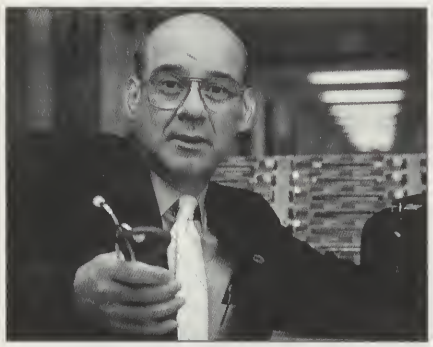
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Adjuvant Therapy in Melanoma Part I: Background, Chemotherapy, Radiation, and Nonspecific Immunotherapy

The major prognostic factor in patients with cutaneous melanoma is the stage of the disease. Patients who develop regional lymph node metastases (stage II disease) have guarded prognosis. However, these patients constitute two separate groups: (1) Those who have no clinical enlarged or palpable regional lymph nodes and underwent elective regional lymphadenectomy and are found to have metastatic melanoma, have 30 to 60 percent five year survival. (2) Patients who present with clinically enlarged regional lymph nodes and underwent therapeutic lymph node dissection have poorer prognosis with a five year survival of 10 to 22 percent.[1-4] In addition, it seems that the number of the involved lymph nodes affects the outcome, and patients who have two or more involved lymph nodes have the poorest survival.[5] Furthermore, patients who develop systemic metastases (stage IV) have extremely poor survival. Again, patients with soft tissue metastases such as in the skin and subcutaneous tissues do live longer than those who have metastases to parenchymatous organs such as the lung, liver, or brain.[6]

Surgery remains the most effective therapeutic modality in this disease. Primary lesions as well as regional lymph node metastases are managed by surgical resection. Patients with limited distant metastases also are managed by surgical excision for palliation, creating a disease-free environment for at least a short time. Such an approach has been used because of a lack of other effective therapeutic modalities at this stage of the disease.

In an attempt to improve such poor survival rates, adjuvant therapy after potentially curative (and occasionally palliative) surgery has been tried.

Adjuvant Chemotherapy Chemotherapy with imidazole-carboxamide (DTIC) alone or in combination with cyclophosphamide showed no survival advantage over those treated by surgery only. Therefore, until some new effective drugs are available, there is no benefit from administering adjuvant chemotherapy.[7,8]

Adjuvant Radiation Therapy Similarly, adjuvant radiation therapy after lymph node dissection was not found to be beneficial.[9]

Immunotherapy In general, immunotherapy can be classified into active and passive, and each can be tumor specific or nonspecific. Active immunotherapy requires an immunocompetent body to respond to the vaccination, and it lasts longer than passive immunization. All types of immunotherapy must be administered in a disease-free environment when there is extremely low tumor load.

With regard to the melanoma, most of the patients with no widespread disease seem to be relatively immunocompetent. Decreased immunocompetence usually results from tumor load rather than from preexisting immune defects in the host.

Nonspecific Immunization By Bacterial Products

The use of nonspecific immune stimulants such as Bacillus Calmette-Guerin (BCG) and *Corynebacterium parvum* (*C. parvum*) constituted most of the adjuvant trials in melanoma for two reasons: to stimulate the immune defenses in the host; and to augment the presumably weak tumor antigens. The results of several clinical trials failed to show significant survival advantages in patients treated by such an approach compared to those treated by surgery only in stage I and II melanoma.[10-12] On the other hand, intralesional injection of BCG is very effective in controlling local recurrences and minimal satellitosis (stage III disease) locally without apparent effect on longevity.

The use of adjuvant chemoimmunotherapy in the form of DTIC, cyclophosphamide, and *C. parvum*,[8] or DTIC and BCG[13] showed no survival benefit.

Immunoreconstitution Levamisole, an antihelmenthic drug, which was found to reconstitute general immunity, also has been tried and failed.[14]

Passive Immunization Lawrence transfer factor, which is a dialyzed extract of sensitized lymphocytes, can enhance and transfer delayed hypersensitivity skin reaction in recipients. However, we must keep in mind that we cannot transfer total immunity, but such transfer has to be specific, that is, the donor lymphocytes must be sensitized to specific antigens to obtain specific transfer. Therefore, the clinical trials yielded conflicting results,[15,16] as the preparation of the transfer factor depends largely on the donor cells sensitization.

Immunomodulation Interferon was tried in patients with advanced disease with a response rate of about 20 percent, similar to DTIC. Such responses were seen with the high dose of interferon. This raises the question of whether such responses were due to immunomodulation or to cytotoxin effect as in chemotherapy.

These adjuvant studies, particularly those using bacterial products, suggest that nonspecific stimulation of the immune system is not a rewarding approach. This is because BCG and *C. parvum* immunotherapy did not achieve the effect of correcting abnormalities of the immune system. In reality, nonspecific systemic immunization with these agents not only did not increase the immune competence, but also it may have resulted in immune deviation that may have suppressed some aspects of the immune functions against the tumor.[17]

References

1. Lane N, Lattes R, Malm J. Clinicopathological correlations in a series of 117 malignant melanomas of the skin of adults. Cancer 1958;11:1025.
2. Southwick HW, Slaughter DP, Hinkamp JR et al. The role of regional node dissection in the treatment of malignant melanoma. Arch Surg 1962;85:63.
3. Mundth ED, Guralnick EA, Baker JW. Malignant melanoma: A clinical study of 427 cases. Ann Surg 1965;162:15.
4. Gumport SL, Harris MN. Results of regional lymph node dissection for melanoma. Ann Surg 1974;179:105.
5. Balch CM, Soong SJ, Murad TM et al. A multifactorial analysis of melanoma III: Prognostic factors in melanoma patients with lymph node metastases (stage II). Ann Surg 1981;193:377.
6. Hena MA, Emrich LJ, Nambisan RN et al. Effect of surgical treatment on Stage IV melanoma. Am J Surg 1987;153:270.
7. Hill GJ, Moss SE, Golomb FM et al. DTIC and combination therapy for melanoma: III. DTIC (NSC 45388) surgical adjuvant study COG Protocol 7040. Cancer 1981;47:2556.
8. Balch CM, Murray D, Presant C et al. Ineffectiveness of adjuvant chemotherapy using DTIC and cyclophosphamide in patients with resectable metastatic melanoma. Surgery 1984;15:454.
9. Creagan ET, Cupps RE, Ivins JC et al. Adjuvant radiation therapy for regional node metastases from malignant melanoma. A randomized, prospective study. Cancer 1978;42:2206.
10. Kaiser LR, Burk MW, Morton DL. Adjuvant therapy for malignant melanoma. Surg Clin North Am 1981;61:1249.
11. Cunningham TJ, Schoenfeld D, Nathanson L et al. A controlled ECOG study of adjuvant therapy in patients with stage I and II malignant melanoma. In Salamon SS, Jones SE eds., Adjuvant Therapy of Cancer II, New York: Grune and Straton, 1979:507.
12. Balch CM, Durnat JR, and the Southeastern Cancer Study Group. A randomized prospective clinical trial of adjuvant c. parvum immunotherapy in 260 patients with clinically localized melanoma (stage I). Prognostic factors analysis and preliminary results of immunotherapy. Cancer 1982;49:1079.
13. Veronesi U, Adamus J, Aubert C et al. A randomized trial of adjuvant chemotherapy and immunotherapy in cutaneous melanoma. N Engl J Med 1982;307:913.
14. Spitler LE, and Sagebiel R. A randomized trial of levamisole versus placebo as adjuvant therapy in malignant melanoma. N Engl J Med 12980;303:1143.
15. Bukowski RM, Deodhar S, Hewlett JS et al. Randomized controlled trial of transfer factor in Stage II malignant melanoma. Cancer 1983;51:269.
16. Blume MR, Rosenbaum EH, Cohen RJ et al. Adjuvant immunotherapy of high risk stage I melanoma with transfer factor. Cancer 1981;47:882.
17. Coates AS, Klopp RG, Zarling JM et al. Immunologic function during adjuvant BCG immunotherapy for malignant melanoma: Induction of anergy. Cancer Immunol Immunotherapy 1979;7:175.

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Legal and Ethical Concerns of Your Medical Practice

This monthly digest will summarize the laws of the State of Maryland, as well as the guidelines, procedures, codes of cooperation, and policy statements of the Medical and Chirurgical Faculty. These laws and policies are being published to reflect recent areas of concern to physicians throughout the state.

The Principles of Medical Ethics of the American Medical Association have been adopted as the ethical standards of the Medical and Chirurgical Faculty, and they govern the conduct of members in their relations to the public and to each other (Faculty Bylaws, Article XIII, Section1). For more information, please refer to the Compendium of Laws, Regulations, Opinions and Policies Governing the Practice of Medicine in Maryland.

■ ■ ■

Retention of Medical Records

Physicians should note that, under Maryland law (Section 4-305 of the Health-General Article of the Code), "except for a minor patient, unless a patient is notified, a physician, optometrist, podiatrist, or dentist may not destroy a medical record or laboratory or x-ray report about a patient for 5 years after the record or report is made."

> A physician, optometrist, podiatrist, or dentist may not destroy a medical record or laboratory or x-ray report about a *minor patient* until the patient attains the age of majority (18 years) plus 3 years or for 5 years after the record or report is made, whichever is later unless:
>
> 1) The parent or guardian of the minor patient is notified; or
> 2) If the medical care documented in the record was provided under Sections 20-102 (c) or 20-103 (c) of the Health-General article, the minor patient is notified (emphasis added).

This section means, therefore, that a physician must keep the patient's medical record for *at least* 5 years after it is made unless the patient is a minor. The statute prescribes the statutory minimum time those records must be kept. In addition to the minimum period designated in the statute, physicians are reminded that there are other important legal considerations necessitating a longer retention time:

1. **Statute of Limitations: Malpractice Claims** This period varies depending on the age of the patient. Section 5-109 of the Courts and Judicial Proceedings Article of the Code provides in pertinent part:

> An action for damages for an injury arising out of the rendering of or failure to render professional services by a health care provider shall be filed within the earlier of:
> (1) Five years of the time the injury was committed; or
> (2) Three years of the date the injury was discovered...

If the claimant was under the age of 11 years at the time the injury was committed, the time limitations prescribed above shall commence when the claimant reaches the age of 11 years. These provisions may not be applied to an action for damages for an injury:

> (i) To the reproductive system of the claimant; or
> (ii) Caused by a foreign object negligently left in the claimant's body.
>
> (2) In an action for damages for an injury described in (i) or (ii), if the claimant was under the age of 16 years at the time the injury was committed, the time limitations prescribed in sentence 1 shall commence when the claimant reaches the age of 16 years.

2. **Medical Records** Medicare regulations state that records pertaining to Medicare payments or services may be reviewed up to 6 years after a claim is filed.

3. **Worker's Compensation Records** Article 101, Section 40 (c) of the Insurance Code provides that the Insurance Commission may modify its award within five years following the *last payment* of compensation.

In lieu of the above sections, the Medical and Chirurgical Faculty recommends that in order for physicians to be fully protected they should maintain their patients' medical records indefinitely. Data storage facilities are available where, for a low fee, records may be stored and retrieved as necessary. Also, physicians often have records microfilmed or microfiched for a minimal charge.

This topic and many others pertaining to the medical record are contained in a book published by Med-Chi entitled, *The Office Medical Record - Ownership, Access, and Release.* The book, presented in a question-and-answer format, is free to members and can be purchased by nonmembers for a nominal fee. Also available is a pamphlet, *Your Patients' Medical Records - A Physician's Guide to Ownership, Access, and Release.* Inquiries about the book and pamphlet should be directed to Michelle Burke or Betsy Newman in the Communications Department.

GREGORY DON HALL PD, JD, LLM

Mr. Hall is associated with the law firm of Rifkin, Evans, Silver & Lamone, which represents the Medical and Chirurgical Faculty of Maryland. ■

MRI UPDATE



Figure 1

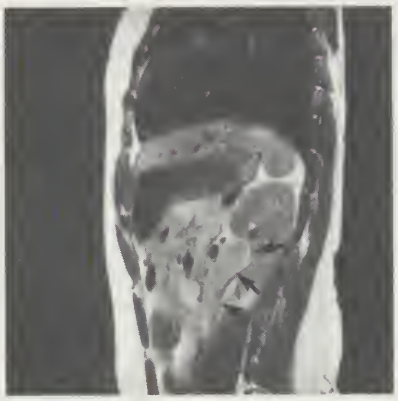


Figure 2



Figure 3

CLINICAL HISTORY: This is a 25-year-old female with complaints of left sided flank pain, nausea, and vomiting.

FINDINGS: Figure 1 represents a coronal T1-weighted image through the kidneys. A lobulated soft tissue mass conforming to the approximate shape of the left renal pelvis and the lower pole collecting system can be identified (large arrow). Signal intensity is intermediate and there is a central area of decreased signal intensity probably representing necrosis. Figure 2 is a sagittal image through the left kidney. In this projection, the soft tissue mass is comma shaped and can be identified extending from the left renal pelvis into the proximal left ureter (small arrows). Figure 3 is a T2-weighted image which exhibits increased signal intensity in the periphery of the mass and central decrcased signal intensity. A curvilinear low signal structure lies medial to the mass and is felt to represent the left renal vein displaced by the mass. The vein appears to be patent as evidenccd by the low signal intensity indicative of flowing blood (small arrows). No adenopathy is identified. There is no evidence of extension of the mass beyond the margins of the left renal pelvis or the proximal left ureter.

MR IMPRESSION: The location and shape of the soft tissue mass is typical for a transitional cell carcinoma.

MR NOTES: MR of the kidneys is a noninvasive procedure yielding both static and dynamic information about the pathologic process in question. In this case, the MR images defined the presence of the soft tissue mass in the left kidney, the confinement of the soft tissue mass to the left renal collecting system and the proximal left ureter, and the lack of invasion into the kidney and the adjacent pararenal soft tissue structures. In addition, the MR scan demonstrated that there is no evidence of thrombosis of the left renal vein nor is there evidence of tumor into the vein. MR imaging of the kidney is a noninvasive procedure allowing both anatomic identification of renal masses, staging of the extent of those renal masses, and determination of the presence or absence of renal vein involvement for surgical planning.

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Sexual Aspects of Cardiovascular Disease. Chris Papadopoulos MD. Westport, CT: Praeger, Greenwood Press, 1989, 109pp.

This valuable new treatise (volume 10 in a series begun in 1984) is devoted to various aspects of Sexual Medicine and edited by Harold Lief MD of Philadelphia. Dr. Lief is an internationally recognized authority in psychiatry, a friend and colleague for many years, and Charter Fellow No. 86 of the American College of Psychoanalysts.

Physicians reading this work will recognize the tremendous significance of adequate and properly informed sexual counseling for their cardiovascular (CV) patients. Generally it is difficult (if not impossible) to accurately quantify emotional feelings and responses for patients with cardiovascular problems as well as other medical disorders.

As the author carefully points out, the quality of marital relations prior to an acute cardiac episode often directly influences the quality of relations achievable following this type of stressful medical event. Dr. Papadopoulos divides his data into eight major areas covering the gamut of his many years' experience as a cardiologist; he is currently Chief of Cardiology at Harbor Hospital Center. The initial area, which has slightly more coverage than his final discussion on sexual counseling and rehabilitation of the CV patient, is on coronary artery disease and sexuality.

The remaining six areas, covered more briefly but with equal care, concern the noncoronary cardiac patient, postcardiac surgery, aorto-iliac occlusive disease, the hypertensive patient, strokes, and cardiovascular drugs. Throughout, the author cites many statistical findings. While of great assistance to the clinician they also often point out rather sharply the relative paucity of clinical research, especially in numbers sufficient to better assist our understanding of what our patients might anticipate in this major aspect of their lives. It might be noted that while anecdotal (with subjects of novels and soap operas) accounts of cardiac death during sexual activity are encountered, actual documented cases are indeed sparse. In this connection added stresses such as travel, overeating, unfamiliar surroundings, illicitness, and fear of discovery can be contributory.

The discomfort and reluctance of many health professionals to discuss with their patients their sexual activities is understandable. Its ease is hardly enhanced by the patients similar emotional restrictions to discussion. It is unfortunate indeed when these kinds of barriers contribute to the subsequent crippling of sexual expression. To provide adequate and accurate counseling about sexual activity in the presence of any illness requires a substantial measure of personal comfort and confidence on the part of the counselor.

When CV accident or illness demonstrably restricts physical activity and exertion, similar restrictions on sexual activity are reasonable. However, as rehabilitative endeavors gradually restore general physical capability, a parallel restoration of sexual activity can well accompany physical improvement. It is regrettable when undue cautions and/or inadequate encouragement reenforces existing apprehensions of many patients about resuming their sexual lives following a CV accident.

In this easy-to-read, compact volume of Dr. Papadopoulos, the need for further clinical research with more significant numbers of persons becomes increasingly apparent. More guidance is properly afforded by the author to the physician and the health professional, rather than to the patient. One cannot stress too much the value of informed medical counseling and its lasting impact, either good or bad depending on its content and quality, on the patients and their spouses. This book is recommended reading for all health personnel who care for those with cardiovascular problems.

HENRY P. LAUGHLIN MD
Associate Editor
Former Clinical Professor of Psychiatry and The Behavioral Sciences, George Washington University Medical School
Emeritus Adjunct Professor of Psychiatry and the Behavioral Sciences, University of Louisville School of Medicine

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References

1. USP DI Update, September/October 1988, p 120.
2. Br J Clin Pharmacol 1985;20:710-713.
3. Data on file, Lilly Research Laboratories.
4. Scand J Gastroenterol 1987;22(suppl 136):61-70.
5. Am J Gastroenterol 1989;84:769-774.

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Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H_2-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H_2-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H_2-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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In 1965, *Dr. Frank J. Ayd* asked a colleague what he thought of the idea of a monthly newsletter devoted to psychopharmacotherapy. Told it would fold within a year for want of reportable news, Ayd decided to launch his newsletter anyway. Now embarking on its 25th year, *International Drug Therapy Newsletter* is the oldest publication of its kind in the history of medicine.

Dr. Ayd, a founder and life fellow of the American College of Neuropsychopharmacology, conceived the idea when the breakthrough discoveries of the 1950s (the neuroleptics, MAOIs, tricyclics, and bensodiazepines) were still on the brink of wide clinical acceptance. Despite their established efficacy, the new treatments required skilled management, and Ayd saw a real physician need for guidance in the emerging art of drug therapy. Dr. Ayd admits his biggest challenge today is not a lack but an abundance of clinically important material.

■ ■ ■

John C. Barry MD, Glen Burnie, recently was inducted as a fellow of the American Academy of Orthopaedic Surgeons during the Academy's annual meeting in New Orleans. Dr. Barry was one of 577 new fellows inducted, bringing the Academy's membership to 15,052. The Academy is the largest medical association for musculoskeletal specialists. Its members have completed medical school plus up to five years of specialty study in orthopaedics in an accredited residency program, passed a comprehensive oral and written exam, and been certified by the American Board of Orthopaedic Surgery.

■ ■ ■

James P.G. Flynn MD, Towson, has been appointed director of the Maryland Institute for Emergency Medical Services Systems (MIEMSS), by the University of Maryland System Board of Regents. Dr. Flynn has been serving as acting director of MIEMSS since May 1989 when its founder, R Adams Cowley MD left to become director of the Charles McC. Mathias, Jr., National Study Center for Trauma and Emergency Medical Systems.



As director of MIEMSS, Flynn heads the state emergency medical services program and the R Adams Cowley Shock Trauma Center, which is part of the University of Maryland Medical System in Baltimore. During the term of his appointment, Flynn will work to enhance the clinical programs of the Institute and to stimulate the development of strong academic links with the school on the UMAB campus.

Dr. Flynn has served as director and chief executive officer of Montebello Rehabilitation Hospital, which, during his tenure, was transformed from a long-term, chronic care facility to a nationally recognized center for rehabilitative medicine. In addition, Dr. Flynn has served on the Boards of Directors of The American Lung Association, The American Heart Association (Maryland Affiliate and Central Maryland Chapter), American Cancer Society, and House of Ruth. He is an active member of the Maryland Thoracic Society, Maryland Helicopter Executive Advisory Committee, and the American Academy of Medical Directors.

Dr. Flynn received his medical degree from Trinity College, University of Dublin, and a master's degree in public health from The Johns Hopkins University School of Hygiene and Public Health.

■ ■ ■

Marcel E. Salive MD, MPH was elected to fellowship in the American College of Preventive Medicine. Dr. Salive has been active in the College's Prevention Policy Committee, Science Committee, and recently served on its Awards Committee. At the Prevention '90 meeting in April, Dr. Salive presented a paper, "Preventive Medicine Residents: A National Survey, 1988."

Dr. Salive is a medical officer in the U.S. Public Health Service stationed at the federal Agency for Health Care Policy and Research, where he coordinates medical effectiveness and patient outcomes research. He completed his residency training in preventive medicine at The Johns Hopkins University, where he retains an appointment as an Associate in the Department of Health Policy and Management.

■ ■ ■

Philip L. Schneider MD, Rockville, has written a chapter, "Spine Trauma," for the recently published textbook, *Orthopedic Injuries in the Elderly*. This 700-page text is the first major work dedicated to the treatment of geriatric injuries. ■

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Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

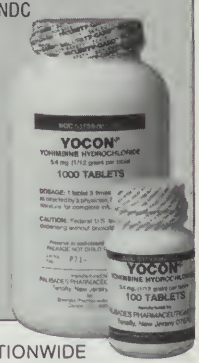
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References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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In the Matter of Mohammed Amirgholi MD Before the Maryland Board of Physician Quality Assurance

Final Decision

Procedural Background

On December 14, 1982 Mohammed Amirgholi MD (Respondent) entered into a Consent Order with the Commission on Medical Discipline in order to resolve charges pending against him issued by the Commission.[1] On February 2, 1988 the Commission charged Respondent with violation of Condition 4 of that Order. On February 2, 1988 the Commission charged Respondent with committing a prohibited act, §14-504(4).[2] On March 23, 1988, the Commission summarily suspended Respondent's license pursuant to State Government Article, §10-704. On March 23, 1988, the Commission charged Respondent with the following prohibited acts:

§14-504(3) - Is guilty of immoral conduct in the practice of medicine.[3]

§14-504(4) - Is professionally, physically or mentally incompetent.

§14-504(6) - Is convicted of or pleads guilty or *nolo contendere* with respect to a crime involving moral turpitude, whether or not any appeal or proceeding is pending to have the conviction or plea set aside.[4]

§14-504(22) - Is disciplined by a licensing or disciplinary authority or convicted or disciplined by a court of any state or country or disciplined by any branch of the United States uniformed services or the Veterans' Administration for an act that would be grounds for disciplinary action under this section.[5]

A prehearing conference was held on January 23, 1989. At issue at the hearing were the §14-504 charges against Respondent, the charge of violation of probation and the summary suspension.

At the hearing, the following exhibits were introduced by Respondent's counsel and counsel for the state:

Joint Exhibits

Joint Exhibit 1. Stipulations of six pages.

Joint Exhibit 2. A list of the State's exhibits consisting of two pages to which the parties stipulated.

Joint Exhibit 3. A list of the Respondent's exhibits.

Hearing Officer's Exhibit

Hearing Officer Exhibit A. Prehearing Order.

State's Exhibits

State Exhibit 1. A copy of a letter from the Commission on Medical Discipline to the Respondent, dated October 20, 1982, notifying him of charges pending against him for violations of §14-504(4) and (6) of HOA, formerly Article 43, 130(h)(4) and §130(h) (18).

State Exhibit 2. A copy of the Findings of Fact, Conclusions of Law and Order, executed o December 14, 1982 between the Commission on Medical Discipline and the Respondent - seven pages to which the parties stipulated.

State Exhibit 3. The Violation of Probation issued by the Commission on Medical Discipline against the Respondent on February 2, 1988, alleging that he violated condition number (4) of the final Order on December 14, 1982 - five pages to which the parties stipulated.

State Exhibit 4. A copy of the *Charges Under the Medical Practice Act* issued by the Commission on Medical Discipline against the Respondent on February 2, 1988, alleging that he violated §14-504(4) of the Health Occupations Article, Annotated Code of Maryland, as then codified - ten pages to which the parties stipulated.

State Exhibit 5. A copy of the Peer Review report of the Medical and Chirurgical Faculty containing the following documents to which the parties stipulated.

a. The September 16, 1986 letter from Emidio A. Bianco MD, Chairman of the Peer Review Committee to the Commission recommending that the Respondent's medical license be revoked on the basis of medical incompetence.

b. The August 6, 1986 cover letter and report of James H. Heroy MD reviewing Respondent's records for 18 patients.

c. The July 17, 1986 letter from Emidio A. Bianco MD to the Commission.

d. The June 11, 1986 letter from Bruce B.K. Golden MD to Dr. Bianco.

e. A copy of the Report to Peer Review Committee of Med Chi of Patient Charts from Practice of [Respondent] issued by Pablo E. Dibos MD.

f. The first three (3) paragraphs of the June 27, 1985 letter from Emidio A. Bianco MD to the Commission regarding an evaluation of the Respondent's medical practice.

g. With transmittal from Dr. Bianco to Commission dated October 10, 1986, eighteen patient records of those patients whose records were reviewed by Dr. Dibos and Dr. Heroy.

1. The Commission on Medical Discipline (the Commission) was the state government agency empowered to sanction physicians. On July 1, 1988 the statute creating the Commission was repealed. The Board of Physician Quality Assurance (the Board) was created and all the powers of the Commission were transferred to the Board. Chapter 109, Acts 1988, Section 4 provided

> That the provisions of this Act do not apply to pending cases before the Commission on Medical Discipline or the Board of Medical Examiners in which a hearing has commenced or an order has been rendered as of the effective date of this Act.

2. §14-504(4) "Is professionally, physically, or mentally incompetent." Under the 1988 amendment this section became §14-504(a)(4). The language remained the same.

3. §14-504(3) was amended in 1988 and became 14-504(a)(3) "unprofessional" was included. This section now reads "Is guilty of immoral or unprofessional conduct in the practice of medicine." Respondent was not charged with "unprofessional" conduct in the practice of medicine.

4. The 1988 amendment deleted this section but added §14-504(b). §14-504(b) has kept the same language of S14-504(6) but requires the Board to automatically suspend and then revoke the physician's license.

5. Under the 1988 amendment, this became §14-504(a)(21) without language change.

State Exhibit 6. The March 23, 1988 Order for Emergency Suspension of the Medical License of the Respondent with attachments of Affidavit in Support of Arrest Warrant, Exhibit 6-1; Judgment and Commitment, Exhibit 6-2; Arrest Warrant, Exhibit 6-3; Application for Statement of Charges.

State Exhibit 7. A copy of Charges Under the Medical Practice Act issued by the Commission against Respondent on March 23, 1988, alleging violations of §§14-504(4), (3), (6), and (22) of the Health Occupations Article, Annotated Code of Maryland, as then codified.

State Exhibit 8. A copy of the STET issued in case number 644141E1, in the District Court of Maryland for Prince George's County, issued on June 9, 1988.

State Exhibit 9. The Curriculum Vitae for Pablo E. Dibos MD.

State Exhibit 10. The Curriculum Vitae for James Herold Heroy, III, MD.

State Exhibit 11. Copies of two patient records submitted by Dr. Heroy as examples of well-documented patient records.

State Exhibit 12. A copy of the testimony transcript in Criminal Action No. M7502-87 in the Superior Court of the District of Columbia, Criminal Division, dated December 7, 1987.

Respondent's Exhibits

Respondent Exhibit 1. A copy of the psychiatric evaluation performed by Jonas R. Rappeport MD on the Respondent, dated May 2, 1988.

Respondent Exhibit 2. A copy of the psychological evaluation performed by James E. Olsson PhD on Respondent, dated April 25, 1988.

Respondent Exhibit 3. A copy of a psychological report performed by Dr. Jean E. Robinson on Respondent, date May 4, 1988.

Respondent Exhibit 4. A copy of a letter from Dr. Jean Robinson to Ms. J. Hunter of the Superior Court of the District of Columbia, dated November 9, 1988.

Respondent Exhibit 5. The Curriculum Vitae of Jones R. Rappeport MD.

Respondent Exhibit 6. The Curriculum Vitae of James Eric Olsson PhD.

Respondent Exhibit 10. The psychological report of David P. Fago PhD regarding the Respondent, dated February 8, 1988.

Respondent Exhibit 11. A letter from David Fago PhD to Counsel for Respondent, dated November 22, 1988.

Respondent Exhibit 12. A May 4, 1988 letter written by the Respondent and forwarded to Counsel for Respondent by Dr. Jean E. Robinson.

Respondent Exhibit 13. A letter from a former patient of Respondent dated January 30, 1989.

Respondent Exhibit 14. A list of continuing education seminars attended by Respondent.

Respondent Exhibit 15. An Affidavit from a former patient of Respondent.

Respondent Exhibit 16. An affidavit from a former patient of Respondent.

Respondent Exhibit 17. An Affidavit from a former patient of Respondent.

Respondent Exhibit 18. A letter from Dr. M.S. Safavian regarding his familiarity with Respondent.

Respondent Exhibit 20. A copy of Respondent's medical license, renewed on October 14, 1986 and dated to expire on September 30, 1988.

Respondent Exhibit 21. The original file of Respondent regarding patient State Exhibit 5-1.

Respondent Exhibit 22. The original file of Respondent regarding patient State Exhibit 5-5.

Respondent Exhibit 23. The original file of Respondent regarding Patient State Exhibit 5-6.

Respondent Exhibit 24. The original file of Respondent regarding State Exhibit 5-3.

Witnesses for the State were: James Harold Heroy, III, MD and Pablo E. Dibos MD.

Witness for the Respondent was M.S. Safavian MD. By letter dated March 1, 1989, the Hearing Officer issued a proposed decision that included proposed Findings of Fact, proposed Conclusions of Law and Recommendations and a proposed Order. The Hearing Officer informed the parties of the date by which they had to file exceptions. On March 22, 1989, the State requested an extension of time in which to file exceptions. The State filed exceptions on April 13, 1989. The Respondent filed exceptions in response to the State's exceptions on April 21, 1989.

A hearing on the exceptions was scheduled before the Board on Wednesday, May 10, 1989. Respondent and the State waived the right to argue the exceptions. Respondent requested an opportunity to address the Board with an alternative proposal for settlement of this case.

The parties were apprised that the Board was not bound by the Hearing Officer's recommended conclusions of law and recommended sanction and that if the Board disagreed with the recommended conclusion of law and/or recommended sanction of the Hearing Officer, they would have ten days to file exceptions to any changes proposed by the Board.

By letter dated June 15, 1989, Respondent submitted a proposal for resolution of this case that, too, was considered but rejected by the Board. On December 12, 1989, the Board issued its proposed decision as voted on by the Board on May 10, 1989. By letter dated that day the parties were informed of their right to file additional exceptions since the sanction proposed was greater than the sanction proposed by the Hearing Officer. The Board informed the parties that any exceptions should be supported by transcript references. Exceptions were to be filed by December 22, 1989. The Board granted the parties an extension to filing exceptions. Respondent filed his exceptions on January 12, 1990 and the State filed responsive exceptions on January 22, 1990. The exceptions were express mailed to all Board members prior to the exceptions hearing. On January 24, 1990, the Board heard argument from the parties. By a majority vote of the full authorized membership of the Board, the Board voted as follows.

Findings of Fact

The Hearing Officer issued proposed Findings of Fact which commence on pages 16-37 of the Recommended Decision (RD). The Board has reviewed these findings of Fact, deleted what it considers legal conclusions, and added other findings from a review of the record. The additional findings of fact are not based on credibility findings, but on documentary evidence and a review of same. Where possible, the Board has noted the page references of the Hearing Officer's decision, exhibit references, and transcript references.[6] There were no exceptions to the Hearing Officer's Findings of Fact by either party.

The parties did not except to the Board's proposed findings of fact when they filed their exceptions in anticipation of the Board's final exception hearing on January 24, 1990.

1. Respondent was licensed to practice medicine in Maryland prior to October 30, 1980 and was practicing in Maryland at all times relevant to these proceedings. (Tr-283).

2. On October 30, 1980 Respondent pled guilty under *North Carolina v. Alford* to five counts of false pretenses in criminal court of Baltimore City, Case No. 18022702. Said charges were based on intentional submission of false invoices to the Maryland Medical Assistance Program (Stipulation #2).

3. On October 20, 1982 the Commission on Medical Discipline (the Commission) charged Respondent as being professionally incompetent, §14-504(4) and as being convicted of or pleads guilty or nolo contendere to a crime involving moral turpitude §14-504(6) (Stipulation #7 and State's Exhibit 1).

4. On December 14, 1982 Respondent entered into a Consent Order. Respondent was represented by an attorney. The Commission found that Respondent's medical practice from 1980 through the present continuously inadequate and below the average standard. The Commission found that committing the crime of false pretenses was a crime of moral turpitude. The Commission concluded Respondent had violated §§14-504(4) and (6) and found Respondent guilty of these charges. The Commission suspended Respondent's license, stayed the suspension placing Respondent on probation. The order allowed Respondent to petition the Commission for reinstatement in two years (Stipulation #8 and State's Exhibit 2).

5. On July 17, 1986 a Peer Review report reviewing Respondent's practice was issued by the Medical and Chirurgical Faculty of the State of Maryland (Stipulation #9).

6. On September 16, 1986 a review conducted by James H. Heroy MD was issued that supplemented the July 17, 1986 Peer Review (Stipulation #10).

7. On June 22, 1987 Respondent was charged with simple assault based on Affidavit in Support of Arrest Warrant in case #M7502-87, Criminal Division, Superior Court of the District of Columbia, *United States v. Amirgholi* (Stipulation #14, State Exhibit 6-1).

8. Respondent was only charged with simple assault in case #M750247-87. There is no evidence Respondent was charged with a sexual offense.[7]

9. The Complainant in #M750247-87 was Respondent's patient (State Exhibit 6-1, State Exhibit 12, pp. 4-37.

10. On September 23, 1987, an Application for Statement of Charges in case number 644141E1 was issued by the District Court for Prince George's County (Stipulation #11, State Exhibit 6-4).

11. On September 23, 1987, in case number 644141E1, in the District Court for Prince George's County, an Arrest Warrant was issued charging fourth degree sexual offense. (Stipulation #12, State Exhibit 6-3).

12. The complainant in case No. 644141E1 was a patient (State Exhibit 6-4, Respondent's Exhibit #2, p. 1).

13. The Complainant in case #M7502-87 testified that Respondent stuck his finger in her vagina while giving her an injection (State Exhibit 6-1, State Exhibit 12, pp. 8, 19, 20, 23, 24, 25, 27, 28).

14. Following a trial by jury and verdict of guilty, Respondent was convicted of simple assault in *USA v. Amirgholi*, Superior Court of D.C., Case No. M7502-87 (Stipulation #15, State's Exhibit 6-2, RD p. 16-17).

15. The simple assault of which Respondent was convicted was an assault on a patient by sticking his finger in her vagina. (State Exhibit #12).

16. On January 19, 1988 in case number M7502-87, in the Criminal Division, Superior Court of the District of Columbia, Respondent was sentenced to one year, all but 60 days suspended, $500 fine, and five years probation (Stipulation #16).

17. Beginning on January 19, 1988 Respondent served forty-five (45) days at the Lorton Reformatory in Fairfax, VA as a result of the conviction in Case #M7502-87 (Stipulation #17).

18. On February 2, 1988 the Commission charged Respondent with violation of probation, specifically, Condition 4 "That Respondent shall conduct his medical practice in a fully competent and adequate manner, and shall maintain his practice and in his medical documentation and recordkeeping procedures equivalent to those of the average competent practitioner" (Stipulation #18, State Exhibit 3).

6. Transcript of hearing on February 6, 1989 will be referenced as "T". Transcript of hearing on February 7, 1989 will be referenced as "Tr". The page reference will follow.

7. The Board accepts the Hearing Officer's Finding of Fact No. 7 on page 17 and No. 2 on page 18. The Board rejects Finding of Fact No. 3 as being incomplete and incorporates by reference the entire Affidavit in Support of Arrest, State Exhibit 6-1. The Board rejects Finding of Fact Nos. 4 and 5 on page 18 as interpretative of a document and not based on fact and notes that the jury found Respondent guilty as charged.

19. On February 2, 1988 the Commission charged Respondent with violation of §14-504(4) (Stipulation #19, State Exhibit 4).

20. On March 23, 1988 the Commission summarily suspended Respondent's license (Stipulation #20, State Exhibit 6, RD p. 16).

21. On March 23, 1988 the Commission charged Respondent with violations of §§14-504(3), (4), (6) and (22) (Stipulation #21, State Exhibit 7).

22. Jonas R. Rappeport MD is an expert in the area of psychiatry (Stipulation #22).

23. On May 2, 1988 Dr. Rappeport issued a psychiatric evaluation of Respondent (Stipulation #23).

24. Jean E. Robinson EdD is trained in the area of educational psychology (Stipulation #24).

25. Dr. Robinson treated and is presently treating Respondent (Stipulation #25).

26. On May 4, 1988 as treating psychologist for Respondent, Dr. Robinson wrote a letter including a confidential psychological report to David F. Fago PhD reporting Respondent's progress in therapy (Stipulation #26).

27. James E. Olsson PhD, is a clinical psychologist licensed in the State of Maryland (Stipulation #27).

28. On May 2, 1988 Dr. Olsson issued a confidential psychological report evaluating the Respondent (Stipulation #28).

29. David F. Fago PhD is a psychologist licensed in the State of Maryland and the District of Columbia specializing in family and adolescent psychology and forensic psychology (Stipulation #29).

30. On February 12, 1988 Dr. Fago issued a confidential psychological report evaluating the Respondent (Stipulation #30).

31. In Dr. Rappeport's report of May 2, 1988 Dr. Rappeport reported that Respondent, in discussing case number M7502-87 stated "I might have put my hand on her pubic area" (Respondent Exhibit 7, page 4).[8]

32. In Dr. Olsson's report of May 2, 1988 in discussing Case No. M7502-87 Dr. Olsson states:

> On the first case for which he had been convicted of simple assault in the Superior Court of the District of Columbia, Dr. Amirgholi admitted to touching the female patient inappropriately but stated "she encouraged me." He further stated "while I was doing acupressure, she moved liked she wanted me to continue to do it" (Respondent's Exhibit 2, p.1).

33. Respondent admitted that he kissed the complainant in case No. 644141E1 and that this behavior was inappropriate (Respondent Exhibit 1, p. 5).

34. Dr. Jean Robinson's report of May 4, 1988 stated that one of Respondent's goals was to continue in Dr. Fago's sex offenders group (Respondent Exhibit 3, p. 2). One of Respondent's goals was to participate in a support group for advocating women's rights, i.e., women sexually harassed or molested.

35. The psychiatric reports of David P. Fago PhD, of February 12, 1988 and February 22, 1988 were issued after the Summary Suspension of February 2, 1988 (Respondent Exhibits 10 and 11).

36. The evaluation by Dr. Jonas Rappeport dated May 2, 1988 was issued after the Summary Suspension (Respondent Exhibit 1).

37. The evaluation of James Olsson PhD dated May 2, 1988 was issued after the Summary Suspension (Respondent Exhibit 2).

38. The evaluations of Jean Robinson, PhD dated May 4, 1988 and November 9, 1988 were issued after the summary suspension (Respondent Exhibits 3 and 4).

39. The charges of Fourth Degree Sexual Offense in *State of Maryland v. Amirgholi*, District Court for Prince George's County, No. 644141E1 were issued September 23, 1987 (Stipulation 11, State Exhibit 6-3, 6-4).

40. A stet was entered in case No. 644141E1 on June 9, 1988 after the summary suspension has issued (Stipulation 13, Exhibit 8).[9]

41. With regard to the misconduct of which he was found guilty and that which was alleged, Dr. Rappeport states:

> I do not believe any indiscreet behavior with female patients would recur (Respondent Exhibit 1 p. 8).

42. Respondent Exhibit 2, a psychological evaluation of Respondent by James E. Olsson PhD, Clinical Psychologist, (see CV in Respondent Exhibit 6) on April 26, 1988 reports, in part:

> Although [Respondent] did not admit that he had a problem in relating sexually to his female patients, he stated generally that his life stresses, including a troubled marriage, may have made him behave in a self-destructive manner...
>
> [Respondent] has been in both individual and group therapy for the past month or so. According to his group therapist, Dr. David Fago, he is a quite active patient and is attempting to get something out of this therapy. [Respondent] showed some initial insight into his problems as he discussed his treatment with this examiner (Respondent Exhibit 2, p. 1).

43. A report of Respondent's progress in therapy written by Dr. Jean E. Robinson to David P. Fago PhD, dated May 4, 1988, states, in part:

> In his short time in therapy, I have seen enormous progress in [Respondent] ...
>
> [Respondent] presents as an emotionally insightful, philosophic, sensitive, and compassionate man ...
>
> It is my professional opinion (although I am not a forensic psychologist and defer to you in those matters) that [Respondent] is remorseful and amenable to rehabilitation (Respondent Exhibit 3, pp. 1 and 2).

44. Respondent Exhibit 10, a psychological report

8. As to Finding of Fact 7 on p. 19, the Board agrees that in Respondent's Exhibit 1, p. 4, the Respondent denied that he fingered the vagina; however, Respondent does admit that he may have put his hand on her pubic area.

9. As to Finding of Fact No. 6, RD at 19, the Board accepts that as to whether Respondent fondled the buttocks of a patient the steting of case No. 644141E1 together with the lack of any evidence on this fact results in there being no proof that Respondent fondled this person's buttocks. However, the evidence introduced by Respondent from the experts indicates inappropriate behavior with this patient as indicated in the order.

on Respondent prepared by David P. Fago PhD, Family and Adolescent Psychologist and Forensic Psychologist, on February 8, 1988 determined that group therapy with sex offenders and concurrent or subsequent marital therapy would be appropriate treatment of Respondent and that "it would seem appropriate that he be treated as a 'distressed physician' and be afforded the procedural treatment opportunities that the District and Maryland medical licensing boards ordinarily offer to such individuals" (Respondent Exhibit 10, pp. 4 and 5). His impression of Respondent, at the time of the evaluation (p. 4) was, in part:

> [Respondent] presents many of the typical features of a 'regressed' rather than 'fixated' or chronic sex offender, i.e., one who has committed sexual offenses in response to rather extreme emotional distress and his inability to maturely and effectively manage feelings of anger and frustration associated with this emotional and sexual rejection by his wife.... With proper supervision and outpatient treatment ... it does not appear that he would constitute a continuing danger to the community if he were permitted to treated (sic) outside an institutional setting.

45. On November 12, 1988 Dr. Fago wrote a letter confirming Respondent's participation in outpatient psychotherapy group and advised that Respondent continue (Stipulation #31).

46. On November 22, 1988, it was reported to counsel for Respondent by Dr. Fago that Respondent had participated in outpatient group psychotherapy with him between March 29 and October 10, 1988, but that he had briefly terminated treatment between October 10 and mid-November 1988 due to financial circumstances. It was also reported that the anticipated need for continued weekly group therapy for the Respondent was an additional 24 months (Respondent Exhibit 11).

47. Dr. Robinson stated "As you are well aware, it is impossible to predict the probability of improprieties in behavior occurring again. Therefore, it must be left up to the discretion of the medical board to determine what if any limitations need to be imposed on Dr. Amirgholi during his process of rehabilitation" (Respondent Exhibit 3, p. 2).

48. Dr. Fago diagnosed Respondent as having unclassified psychosexual disorder and recommended that Respondent receive 18 to 24 months psychotherapy (Respondent Exhibit 10, p. 3-4).

49. Dr. Fago saw Respondent between March 29 and October 10, 1988. Respondent stopped seeing Dr. Fago in November of 1988. Dr. Fago recommended he continue in treatment 24 months (Respondent Exhibit 11, RD p. 21, #11).

50. There is no evidence Respondent continued psychotherapy treatment.[10]

10. The Board rejects RD #12, p. 21, insofar as it states Dr. Fago states that Respondent presented no danger of recurrence. There is no reference for this statement. The Board rejects RD #13, p. 22. This is not a factual finding but a medical opinion for which there is no basis. Dr. Fago did not state there is "no danger" but that it does not appear that he would constitute a continuing danger.

51. On July 17, 1986, in a letter from Dr. Bianco, Chairman of the Med Chi Peer Review Committee to the Commission, it was recommended that Respondent's medical charts be reviewed by an Otolaryngologist who practices Allergy (RD #24, p. 26).

52. On August 6, 1986, James H. Heroy MD, a specialist in Otolaryngology, Head and Neck Surgery, and Allergy, forwarded a copy of his report on the charges of several of Respondent's patients to Dr. Bianco. That report, contained in State Exhibit 3, concludes, in part:

> In summary, I feel that this physician's treatment regimes in some areas are different than mine and in some cases I would definitely disagree or feel that he has omitted workups. Over (sic), however, it is extremely difficult to judge this individual's performances in view of the extremely spotty documentation of history, physical, diagnosis, and treatment in virtually every chart. Also, there seems to have been decisions made that are not placed on the chart (RD #25, pp. 26-27.

53. The standard of care with regard to patient records in the practice of Otolaryngology, Head and Neck Surgery and Allergy, requires the inclusion of a complete history of the illness (chief complaint), a past history of other conditions or medications pertaining to the patient, an environmental history with specific regard to the complaints from which the patient is suffering, a pertinent family history of allergies, and a record of the physical examination (looking for signs on the skin, mucous membranes, eyes, etc.).

The testimony of all physicians testifying at the hearing supported a finding that a patient chart, to be within the standard of care, must contain a complete history of the chief complaint (past history, family history, environmental history), and all pertinent findings of the physical examination to enable the physician to recall as much as possible about the patient.

Due to the often spurious positive or negative results of skin or RAST tests, test results should be used in the context of confirming or correlating to the history obtained by the physician during the examination (RD #26, p. 27).

54. There is clear and convincing evidence that Respondent's records are insufficient and do not meet the standard of care within the community.

Review of Respondent's patients' charts supports a finding that they do not reveal what took place between the physician and the patient. Information that may have been gathered by the physician was not written into the chart, and therefore it is not possible to uncover what information was given by the patients, what examinations were performed by the physician, or what the results of the examination were.

History and exam notes were very skimpy and did not impart a sufficient indication of the patients' histories or the findings resulting from the physical examinations.

The testimony of Dr. Heroy supported a finding that

the patient records for 14 patients were inadequate with regard to history:

> The testimony and written review of charts by Dr. Heroy support a finding that the treatment rendered to patients by Respondent breached the standard of care in the community by failure to document physical findings and justification for treatment.

55. Although Dr. Dibos does not practice within the same specialty as Respondent, his review of patient charts and this testimony support a finding that Respondent's treatment of several patients is outside the Respondent's area of expertise, his treatment of some patients is outside the standard of care in the practice of medicine, and his scant and incomplete recordkeeping for patient charts breaches the standard of care for the practice of medicine in the community.

Dr. Dibos is knowledgeable with regard to the standard of care in the practice of medicine in this community (RD #28, p. 33).

56. The testimony of Dr. Safavian, accepted as an expert of the specialty area of ENT, but not in the area of allergy, does not overcome a finding that Respondent's practice of ENT and Allergy is not within the standard of care.

Dr. Safavian, who admitted to not being at all familiar with practice of allergy, suggested that, in his opinion, the lack of recording negative findings in Respondent's charts is within the standard of care. However, he admitted that he is not familiar with the requirements of recordkeeping in the practice of allergy. He testified that the physician's records serve only to remind the physician regarding the problems and treatment of a patient. He stated that a proper history should include the complaint, the reason for the office visit, and a history of the complaint. He stated that the histories he reviewed in State Exhibit 5 were adequate with regard to notation of history and physical findings, although he noted that he did not review all of the patient files contained in State Exhibit 5.

Dr. Safavian suggested that the files he reviewed contained adequate histories, diagnoses, and treatment notations. He stated that Respondent's practice, to his estimation, was within the standard of care. He stated that the standard of care applicable to all physicians requires that a treatment plan should be written in the record, that all office visits should be noted even if the findings at that visit were all negative, that a diagnosis should be noted for every visit, and that if a diagnosis changes or is added, the record should be complete. He also stated that an environmental history should be included in a record when it is related to the complaint. He added that a family history is not significant in all events, and that a past history is not always important to include in the record. He stated, however, that the extent of the history depends on the complaint, i.e., if surgery is to be done, a complete history is necessary.

Dr. Safavian also suggested that although one of the records he reviewed did not have a treatment plan written in the record, this was not a significant deviation from the standard of care. He added that in training new physicians, more stringent demands are made on their recordkeeping to insure a higher standard in recordkeeping, but that the standard for review of records in an outpatient practice should be more relaxed.

Dr. Safavian noted certain components of recordkeeping were common to and required of all physicians, and these components were undisputedly missing from the records of Respondent: history, treatment plan, findings of office visits, test results, etc. (RD #29, p. 33-35).

58. Respondent's practice of medicine is below the minimum standard of care acceptable in the practice of medicine in this community (RD #30, p. 35).

59. By Consent Order dated December 14, 1985 Respondent agreed to certain terms and conditions of probation. (RD #31, p. 35).

60. The fourth term and condition of the Consent Order dated December 14, 1982 required:

> That Respondent shall at all times conduct his medical practice in a fully competent and adequate manner, and shall maintain in his practice and in his medical documentation and recordkeeping procedures, standards equivalent to those of the average competent practitioner of medicine (RD #32, p. 36).

61. The Consent Order dated December 14, 1982 provided that two years from the date of the Order, Respondent could petition the Commission for a termination of the probationary status and for full reinstatement of his license to practice medicine without any condition or restriction whatsoever (RD #33, p. 36).

62. The Respondent had not, as of the date of the issuance of the Violation of Probation allegations, petitioned for termination of the probationary status, and he was on probationary status subject to the terms and conditions set forth in the Consent Order dated December 14, 1982 (RD #34, p. 36).

63. By reports dated July 17, 1986 and September 16, 1986, the Peer Review Committee of the Medical and Chirurgical Faculty of the State of Maryland communicated to the Commission the results of the review of Respondent's medical practice, which reports demonstrated that Respondent was not competently and adequately practicing medicine and that he failed to demonstrate that he maintained, in his practice and his medical documentation and recordkeeping, procedures and standards equivalent to those of the average competent practitioner of medicine (RD #35, p. 36).

Conclusions of Law

By a majority vote of the full authorized membership of the Board considering this case, the Board concludes as follows:

Based on the foregoing Findings of Fact, it hereby concluded by preponderance of the evidence that

Respondent violated Condition 4 insofar as Respondent failed to:[11]

a) at all times conduct his medical practice in a fully competent and adequate manner; and

b) maintain in his practice and in his medical documentation and recordkeeping procedures, standards equivalent to those of the average competent practitioner of medicine.

And it is, by a majority vote of the full authorized membership of the Board considering this case, based on clear and convincing evidence, concluded as a matter of law that Respondent

Is guilty of immoral conduct in the practice of medicine HO §14-504(3).[12]

An it is, by a majority vote of the full authorized membership of the Board considering this case, based on clear and convincing evidence, concluded as a matter of law that Respondent

Is professionally, physically or mentally incompetent HO §14-504(4).

And it is, by a majority vote of the full authorized membership of the Board considering this case, based on clear and convincing evidence, concluded as a matter of law that Respondent

Is convicted of or pleads guilty or nolo contendere with respect to a crime involving moral turpitude, whether or not any appeal or other proceeding is pending to have the conviction or plea set aside HO §14-504(6).[13]

And it is, by a majority vote of the full authorized membership of the Board considering this case, based on preponderance of evidence

That Respondent was an imminent danger to the public health safety and welfare of the citizens of Maryland.[14]

And it is, by a majority vote of the full authorized membership of the Board considering this case, that Respondent did not commit the prohibited act as set forth by HO §14-504(22)

Is disciplined by a licensing or disciplinary authority or convicted or disciplined by a court of any state or country or disciplined by any branch of the United States uniformed services or the Veterans' Administration for an act that would be grounds for disciplinary action under this section.[15]

Order

By a majority vote of the full authorized membership of the Board considering this case, based on Findings of Fact, and Conclusions of Law, it is this 5th day of February 1990

ORDERED that the charge against Respondent based on HO §14-504(22) is DISMISSED; and be it further

ORDERED that Respondent's license to practice medicine is REVOKED; and be it further

ORDERED that the Summary Suspension is VACATED; and be it further

ORDERED that this is a FINAL ORDER.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

11. The standard of proof necessary to prove a violation of probation is preponderance of evidence. *See Wink v. State*, 317 Md. 330, 563 A.2d 414 (1989).

12. The testimony in Criminal Action No. M7502-87 shows, at minimum, that Respondent assaulted a patient. As assault on a patient shocks the conscience of reasonable men and in the medical community is immoral behavior.

13. To be a crime of moral turpitude, the crime does not have to be a felony. It is conduct which is base or vile and contrary to the accepted and customary conduct between men. *Ricketts v. State*, 291 Md. 701 (1981); *Dental Examiners v. Lazzell*, 172 Md. 314 (1937). The circumstances of this case involve an assault against a patient, who was disrobed, and is based on case number M7502-87.

14. A hearing under State Government Article §10-404, is governed by the Administrative Procedure Article. The Administrative Procedure Article requires a preponderance of the evidence as the standard of proof. *Bernstein v. Real Estate Commission*, 221 Md. 221 (1959). Additionally, a summary suspension is analogous to an *ex parte* injunction. In Maryland when the moving party is the State in an injunction proceeding, the standard for granting an injunction is significantly lighter. All the state needs to show is that the conduct sought to be enjoined violates or is about to violate a law designed to protect the public health and welfare. *State Department of Health and Mental Hygiene v. Baltimore County*, 281 Md. 548 (1977). When the Commission determined to summarily suspend Respondent it not only knew Respondent was convicted of a crime, was charged with another but also that peer review had found his practice incompetent and that he was in violation of his probationary conditions.

15. Respondent was not given notice in the charging document of March 23, 1988 of the grounds for disciplinary action under §14-504 upon which this charge was based. Although it may be inferred that the grounds were §14-504(3) and (6), the Board believes under the Administrative Procedure Act, this is not sufficient notice.

■ ■ ■

In the Matter of
William Korman MD
Before the
Maryland Board of
Physician Quality Assurance

Tuesday
January 16, 1990

Charles G. Bernstein, Esquire
Suite 2852, World Trade Center
Baltimore, MD 21202
301-685-3400

RE: William Korman MD

Dear Mr. Bernstein:

At its meeting on Wednesday, January 10, 1990, the Board of Physician Quality Assurance (the Board) voted to accept the surrender of Dr. Korman's license as resolution of the Board's investigation against him, as follows.

As you are aware Section 14-503(a) of the Health Occupations Article, Annotated Code of Maryland (HO) states that unless the Board agrees to accept the surrender of a license, a licensed physician may not surrender the license while the licensee is under investigation. HO §14-503(b) permits the Board to set conditions on its agreement to accept surrender of the physician's license. While the Board accepts the conditions outlined in Dr. Korman's Letter of Surrender dated November 28, 1989, the Board will not accept this surrender unless it is considered a public document. Additionally the Board will not accept this surrender without making clear that in the event that Dr. Korman applies for reinstatement the Board is under no obligation to reinstate his license. In other words Dr. Korman is in the same status as one whose license has been revoked.

Finally, if the Board does entertain a petition for reinstatement of Dr. Korman's license, Dr. Korman would not only bear the burden of demonstrating that he is competent to practice medicine but also that he meets the other requirements for reinstatement of his license, i.e., is otherwise entitled to be licensed. HO 14-509.

Based on Dr. Korman's agreeing to the above additional conditions to the Letter of Surrender dated November 28, 1989 and the execution by Dr. Korman of this letter the Board will accept the surrender of Dr. Korman's license. Dr. Korman must return an executed copy of this original letter by March 1, 1990. The Board will then forward an executed acceptance of the letter of surrender to you. If Dr. Korman does not agree to these additional conditions the Board must proceed under HO §14-504(b).

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

Agreement

I, William Korman MD, accept the above referenced additional conditions to my letter of surrender to the Board of Physician Quality Assurance dated November 28, 1989, in order that the Board agree to accept the surrender of my license in resolution of the investigation against me.

WILLIAM KORMAN MD

November 28, 1989

CERTIFIED MAIL

Israel H. Weiner MD, Chair, and
Board of Physician Quality Assurance Members
Department of Health and Mental Hygiene
P.O. Box 2571
Baltimore, MD 21215-0095

Dear Dr. Weiner and Board Members:

Please be advised that I have decided to surrender my Maryland license, which entitles me to practice medicine in the State of Maryland. I am not licensed in any other jurisdictions.

My decision to discontinue the practice of medicine has been prompted by an investigation of my practice by the Attorney General's Office and by my poor health. This investigation has resulted in my being charged criminally with Medicaid fraud in violation of Article 27, §230C and §230B(b)(1).

It is my desire to resolve this matter without formal action. In executing this letter of surrender of my license to practice medicine, I understand and agree that I can apply for reinstatement of my license in Maryland; however, if I apply for reinstatement of my license, I bear the burden of proving to the Board of Physician Quality Assurance (the Board) that I am competent to practice medicine. The Board may require that I take either the National Boards of the Flex Examinations or be evaluated by the McMasters program in Canada. I would bear the cost of any such evaluation. In other words, I must demonstrate that I have the cognitive and clinical competence to practice medicine.

I also agree that I will not attempt to obtain licensing in any other state or jurisdiction until such time as Maryland reinstates my license.

I understand that I may not give medical advice to any individual, for compensation or otherwise, and cannot prescribe medication. In other words, I understand that the surrender of my license means that I am in the same position as an unlicensed individual.

I understand that the Board will acknowledge to the Federation of State Medical Boards that I have surrendered my license. The Board will also acknowledge, for statistical purposes, without reference to my name , that as a result of the Commission's Order, a surrender of my license was obtained. I further understand that in the event that I would apply for reinstatement of my license in Maryland or apply to another state or country for a license to practice medicine, that this letter, and all underlying documents, may be released or published by the Board to the same extent as a final order under the Public Information Act.

However, if I comply with conditions below, the Board will accept this letter of surrender, and will take no further action against me. If an inquiry is made to the Board regarding the status of my license, the Board will state that I no longer have a license to practice medicine in Maryland.

Before the Board executes this letter as an acceptance of a resolution in this case, I understand that I must present now or shortly thereafter the following:

1. A copy of my letters to the Federal Drug Enforcement Administration (DEA) and the Maryland Division of Drug Control, surrendering my registration to prescribe controlled dangerous substances. Those letters have been sent certified, return receipt requested, and I have enclosed the respective registrations. I will present evidence of receipt by DEA and the Maryland Division of Drug Control when I receive it.

2. A copy of my letter to hospitals surrendering my privileges and resigning from the hospital staff. These letters have been sent certified, return receipt requested, and I will present evidence of receipt as soon as it is received. As to Sinai Hospital, please see Exhibits C-1 and C-2 noting my resignation from active staff.

3. I have destroyed all prescription pads bearing my name and all controlled dangerous substances remaining in my office were given to Erwin Hecker MD when I sold my practice to him. No prescription pads or controlled dangerous substances are within my custody, possession, or control.

4. A copy of the letter sent to my patients explaining that I am retiring from the practice of medicine and giving them the name of the physician to whom I am turning over my practice will be provided.

5. I also enclose the original of my license renewal issued by the Maryland State Board of Physician Quality Assurance.

Finally, I wish to make clear that I have consulted with an attorney before signing this letter surrendering my license to practice medicine in Maryland. I understand this letter of surrender fully. I make this decision freely and voluntarily.

WILLIAM KORMAN

On behalf of the Board of Physician Quality Assurance, on this 15th day of February, 1989 I accept William Korman's surrender of his license to practice medicine in Maryland.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

■ ■ ■

In the Matter of
Sang Kyun Shin MD
Before the
Maryland Board of
Physician Quality Assurance

Final Decision

Summary of Evidence,
Findings of Fact, Conclusions of Law

On November 21, 1988, the Maryland Board of Physician Quality Assurance (the Board) charged Sang Kyun Shin MD (Respondent), pursuant to §14-504, Health Occupations Article of the Annotated Code of Maryland (H). Respondent was charged as follows:

> Is convicted of or pleads guilty or *nolo contendere* with respect to a crime involving moral turpitude, whether or not any appeal or other proceeding is pending to have the conviction or plea set aside; HO §14-504(6)[1]
>
> Is . . . convicted . . . by a court of any state or country for an act

1. The 1988 General Assembly, by Senate Bill No. 508 and House Bill 855, merged the functions of the Commission on Medical Discipline and the Board of Medical Examiners into the Board of Physician Quality Assurance. The General Assembly also amended Health Occupations Article, §14-504 by repealing HO §14-504(6) and enacting HO §14-504(b). Section 14-504(b) *requires* the Board to suspend a license if the licensee is convicted of or pleads guilty or *nolo contendere* to a crime involving moral turpitude, whether or not any appeal or other proceeding is pending to have the conviction or plea set aside. In addition, after the completion of the appellate process if the conviction has not been reversed or the plea has not been set side with respect to a crime of moral turpitude, the Board *shall order* the revocation of a license. Under this repeal and amendment, the grounds for discipline set forth in HO §14-504(6) remain the same, but the Board's discretion as to sanction is removed. Because the conviction or plea herein occurred prior to the effective date of the Act, the charge is issued under former HO §14-504(6), giving the Board discretion as to any sanction.

2. These charges are cited under the Act prior to amendment. The present parallel cites are HO §14-504(22) = HO §14-504(a)(21); HO §14-504(3) = HO §14-504(a)(3); HO §14-504(12) = HO §14-504(a)(11) The Board notes as cited §14-504(a)(3) includes "unprofessional" conduct. However, "unprofessional" was added to this section on July 1, 1988. This amendment occurred after the date of the facts at issue in this case. Therefore, Respondent cannot be charged with "unprofessional" conduct. The charge of "immoral conduct" stands.

that would be grounds for disciplinary action under this section; [HO §14-504(22)]

Grounds for disciplinary action under this section are:

Is guilty of immoral or unprofessional conduct in the practice of medicine; [HO §14-504(3)]

Willfully makes or files a false report or record in the practice of medicine; [HO §14-504(12) of the Act][2]

A hearing was scheduled before a Hearing Officer pursuant to HO §14-505 and commenced on July 7, 1989 and was continued on August 15, 1989.

Summary of Evidence

State Exhibit 1 - Letter to Dr. Shin dated November 21, 1988.

State Exhibit 2 - Charges issued November 21, 1988.

State Exhibit 3 - Summons and Notice of Charges and Hearing.

State Exhibit 4 - Certified copy of docket entries.

State Exhibit 5 - Criminal Information Number 28736403.

State Exhibit 6 - Statement of Facts. Respondent introduced the following exhibits 1-33, which were admitted into evidence, in part over objection by the Administrative Prosecutor:

The following documents were introduced into evidence without objection as Hearing Officer's exhibits:

Hearing Officer Exhibit 1 - Stipulation signed by Alice D. Ike, Esquire and Anton J.S. Keating, Esquire, six pages.

Hearing Officer Exhibit 2 - List of witnesses.

Ten persons testified for the Respondent.

On September 20, 1989, the Hearing Officer submitted the proposed Findings of Fact, Conclusions of Law, and Recommendations (Recommended Decision) to the Respondent and the State. Pursuant to State Government Article, §10-212, the parties were advised of their right to file exceptions and make oral argument on exceptions to the Board. By letter dated November 6, 1989 the Board notified the parties that it had received no exceptions and that the Board would consider the Recommended Decision at its November 22, 1989 meeting. The Board reviewed the Recommended Decision on November 22, 1989. The Board postponed consideration of the Recommended Decision until Wednesday, December 13, 1989. At that meeting, on an affirmative vote of a majority of its full authorized membership, the Board decided as follows and issued this Final Order and Decision.

Findings of Fact

The Board finds based on the testimony and exhibits introduced at the hearing, by clear and convincing evidence, that:

1. At all times relevant, Respondent was licensed to practice medicine in Maryland and was practicing as a pediatrician.

2. The Respondent pled guilty to Medicaid Fraud in violation of Article 27, §230C pursuant to Criminal Information #28736403 in *State of Maryland v. Sang Kyun Shin*, on December 30, 1987. On that date the Court's verdict was guilty on count 1 of the Criminal Information.

3. On December 30, 1987, Respondent was placed on two (2) years of supervised probation under Article 27, §641, received a fine of $10,000 and was ordered to pay restitution in the amount of $8,272.50 to the Department of Health and Mental Hygiene.

4. The time for filing an appeal to set aside Respondent's guilty plea and conviction has passed.

5. Respondent admitted to acts sufficient to support the plea accepted by the Criminal Court.

6. The Respondent was audited on his Medicaid billings by representatives of the Medicaid Fraud Unit. Twenty bills were found where the Respondent had not seen the patient on the particular occasion for which he had been billed.

7. Medicaid fraud is a crime of moral turpitude that involves willfully submitting false reports in the practice of medicine.

Conclusions of Law

By clear and convincing evidence, the Board concludes as a matter of law that Respondent committed the following act:

pleads guilty . . . to a crime involving moral turpitude, whether or not any appeal or other proceeding is pending to have the conviction or plea set aside; §14-504(6)[3]

By clear and convincing evidence the Board concludes as a matter of law that Respondent did not commit the following acts:

Is . . . convicted . . . by a court of any state or country for an act that would be grounds for disciplinary action under this section; [HO §14-504(22)]

Is guilty of immoral unprofessional conduct in the practice of medicine; [HO §14-504(3)]

Willfully makes or files a false report or record in the practice of medicine; [HO §14-504(12) of Act][4]

Facts as to the Sanction

1. The Respondent testified that he arrived in his present circumstances because, when he was audited

3. In reaching this decision, the Board notes that Respondent's counsel contended that the Criminal Court, by its issuance of probation before judgment overturned Respondent's plea of guilty so that there is no such plea now in existence and the Board, therefore, does not have jurisdiction to sanction Respondent under §14-504(6) which provides, in pertinent part, "is convicted of or pleads guilty or nolo contendere with respect to a crime involved moral turpitude...." The Board adopts the Hearing Officer's conclusion as set forth in the addendum.

4. Respondent was given probation prior to judgment under Article 27, §641. Probation prior to judgment is not a conviction. *Myers v. State*, 303 Md. 639, 496 A.2d 312 (1985); *State v. Shilling*, 75 Md. App. 233, 540 A.2d 1184 (1988). Consequently this charge and the underlying grounds must be dismissed.

and the 20 cases were called to his attention, he sought the advice of counsel. Counsel informed him that he might either make a plea bargain with the State or he might contest the case. If he contested the case, the fee would be in the range of $50,000 to $60,000. If he plea bargained, however, the criminal offense on his record would do him no harm and the Commission on Medical Discipline, which was the predecessor to the present Board, could be accurately predicted to take no action against his license since it never took action against anyone's license in Medicaid Fraud cases, even where the fraud was in excess of a half million dollars. The Respondent accepted the advice of his counsel and entered into a plea bargain without contesting the State's factual allegations whereupon the law promptly changed, a new Board was established, and a new, much firmer policy was instituted with regard to Medicaid Fraud. The Respondent's discussion of his legal tactical situation is believable, but does not either alter the fact that he had pled guilty to Medicaid Fraud.

2. Respondent admitted that he did send requests for Medicaid payment on 20 occasions spread over three years when the patients were repeated "no-shows." The total submittal over three years amounts to $335. Respondent did not fake treatment notes for these occasions but annotated the histories to show that the patients did not keep their appointments.

3. The Respondent has a reputation for being a dedicated, hard working, very competent pediatrician.

The Respondent was portrayed by the witnesses previously identified as being totally dedicated and extremely capable in his practice. He immerses himself in his practice and his family and little else. He is available at all times to his patients. If the telephone rings at a medical conference it is a standing joke that the call is probably for the Respondent. The Respondent was praised in the strongest terms by various kinds of health care professionals and lay witnesses. All perceived him as being uncompromisingly honest, hard working, careful, and caring. None saw him as having any potential for committing a deliberate fraud. Dr. T. Edgie Russell recommended him for his present practice and remains firmly supportive. Other pediatricians and health care providers entrust their children to the Respondent. All witnesses were impressive. All spoke with conviction and believed in their testimony.

4. The Respondent testified on his own behalf and was also believable. Dr. Shin makes well over $100,000 per year and has no need to defraud the government of $335 spread over a three-year period. The facts support his version, that in frustration with persons who were multiple no-shows he sent off these requests for payment feeling that somehow he and his people at least should be compensated for staying the extra hours to try to help people who then did not show and did not have the courtesy to call. Regardless, a case of fraud has been made out; the Respondent's conduct amounts to a serious lapse in judgment resulting in his plea of guilty and the imposition of probation before judgment.

5. The Respondent has made restitution to the Department of Health and Mental Hygiene in the amount in excess of $8,272.50 as directed by the Criminal Court, has paid the Court costs assessed in the amount of $95 and has further paid the fine assessed of $10,000, for a total payment of $18,367.50.

Order

By a majority of the full authorized membership of the Board considering this case, it is this 16th day of January 1990 hereby

ORDERED that Respondent's license is SUSPENDED; and it is further

ORDERED that said suspension is IMMEDIATELY STAYED pending Respondent's compliance with the following condition:

1. That Respondent will indicate in all medical records the reasons for ordering a throat culture; and be it further

ORDERED that on or about June 1, 1991 Respondent will submit to a peer review of his practice to determine if he has met the condition of probation; and be it further

ORDERED that on or about January 16, 1992 Respondent may petition the Board to lift the suspension on his license; and be it further

ORDERED that the following charge and underlying grounds

> Is . . . convicted . . . by a court of any state or country for an act that would be grounds for disciplinary action under this section; [HO §14-504(22)]

Grounds for disciplinary action under this section are:

> Is guilty of immoral or unprofessional conduct in the practice of medicine; [HO §14-504(3)]
>
> Willfully makes or files a false report or record in the practice of medicine; [HO §14-504(12) of the Act]

are DISMISSED; and be it further

ORDERED that this is a final order.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance ■

ICD-9-CM RBRVS RCT HCFA BPQA

PPO IPA ACEP

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__Mammography
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__Men's Health Concerns
__Meningitis
__Menstruation/Menopause
__Mental Health/Illness
__Mumps, Measles, Chickenpox
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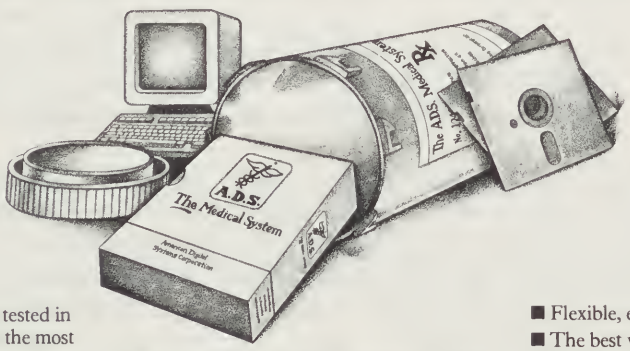
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Medical and Chirurgical Faculty of Maryland

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Faculty Position

PEER REVIEW MANAGEMENT COMMITTEE

INTRODUCTION

Physician Peer Review is a matter of public policy because the state, as grantor of a license to practice medicine, has a duty to protect the public from being injured or defrauded by unqualified or incompetent physicians.

American courts consistently support the validity of state laws that immunize peer review physicians against liability when acting in good faith.

Physicians should support and perform Peer Review for the following reasons:

(a) disciplinary actions against unqualified or incompetent physicians protect the public and maintain the integrity of the medical profession;

(b) the complexities of medical diagnosis and treatment are best scrutinized by physicians; and

(c) Peer Review has inherent educational value not only for the physician being reviewed, but for the reviewers and the medical community at large.

The state medical society should be exquisitely preoccupied with the notion that Peer Review must be fair, because an unfair appraisal could lead to the revocation of a physician's license, that is, the loss of his livelihood. Assuring that Peer Review findings are fundamentally fair at least requires the following:

(a) the investigations of a responding physician must be by physicians;

(b) medical record review must be conducted by physicians, at least one of whom must be a member of the same specialty;

(c) the responding physician must be afforded the opportunity to be interviewed by the appropriate Peer Review Committee; and

(d) the Peer Review Committee's conclusions and recommendations should be reviewed by a group of physicians (Peer Review Management Committee) who would attest that the conclusions and recommendations are supportable by the available evidence.

BACKGROUND

Role of Peer Review Management Committee (PRMC)

PRMC shall receive cases referred by the Board of Physician Quality Assurance, identify the guidelines to be used in conducting Peer Review, and shall refer cases to the appropriate MED CHI committees, component or specialty society, or regional review committees. The guidelines for referral are enumerated in the Peer Review Handbook approved by Council and adopted by the Board of Physician Quality Assurance.

PRMC shall develop a monitoring procedure that allows the immediate determination of the status of any Peer Review complaint, should insure that review is done in a timely manner and should encourage corrective action to prevent unnecessary delays.

PRMC shall review final reports prepared by Peer Review Committees and should assure that the review and report were conducted and prepared in accordance with the guidelines of the Peer Review Handbook and that the conclusions are supported by the evidence.

When PRMC finds a report to be inadequate in any respect, the inadequacy shall be specifically identified and returned to the committee for further resolution. PRMC will provide organizational assistance to any review committee throughout Maryland and shall gather, analyze and report statistical information annually for use by the Board of Physician Quality Assurance, MED CHI, and component societies.

Medical
and Chirurgical Faculty
of Maryland

PRMC will identify areas in which educational programs will benefit regional review committees, and shall arrange to provide the educational programs. The educational programs will emphasize the need for component medical societies to be involved in Peer Review in some manner, the need for a specialist to be part of the reviewing team, the need to be fair, the need to be timely, the need to assure reasonable conclusions, and the need to be systematic in performing Peer Review.

RECOMMENDATION

1. That the Medical and Chirurgical Faculty of Maryland reaffirms its involvement and essential role in the peer review process; and

2. That the Faculty ensures continued excellence in the peer review process by appropriately funding this activity to allow staffing by qualified individuals.

Medical and Chirurgical Faculty of Maryland

Approved

Faculty Position 3 / 15 / 90

TEEN PREGNANCY AND INFANT MORTALITY

Summary

The problem of teenage pregnancy and infant mortality remains a major one for the State of Maryland. It is an issue being addressed by our government as well as the private sector. It is extremely important that our State Medical Society get involved in promoting and assisting programs that reduce infant mortality and the role of teenage pregnancy in this mortality.

In 1986 there were 8,143 births to women under age 20. This included 234 births to girls under 15 and 2,956 births to girls 15-17 years of age. About 12 percent of all births in Maryland were to women under 20. Data for 1988 indicate that the number of births to teens is still increasing (8,449).

Teenage mothers have a higher incidence of prematurity in their babies than the average population. In 1983, whereas the percentage of low birth weight babies for all pregnancies was 8.8 percent, for mothers 14 and under, it was 15.2 percent, and for those 15-19, 11.2 percent. Black mothers, in general, have a higher incidence of low birth weight babies than do white mothers. However, in 1983, white mothers 14 and under had a 25 percent low birth weight rate in their newborns.

Infant mortality is also related to the age of the mother. Whereas, in 1979-81 the infant mortality rate in the state was 13.4 per thousand live births, for babies born to mothers under 14, the rate was 37.3 and for those aged 15-19, the rate was 18.9. Therefore, the major issues in regard to infant outcome in teenage pregnancy are those related to prematurity and mortality.

Legislation

In the State of Maryland, both legislative and executive branches have been taking an increasingly more visible look into the problems of teenage pregnancy. The Governor has a Council on adolescent

pregnancy which in 1988 produced a long term plan for addressing this problem. This plan is detailed in the document entitled "Action 90", a copy of which is attached. A newly formed State Advisory Council on Infant Mortality has just begun its work.

Recommended Action

The Faculty should get involved in several ways.

1. Support the plan outlined in "Action 90".

2. Be a strong voice in sex education for young people by supporting educators and becoming resource people to them.

3. Look very closely at the problem of access to care. There are many social and economic reasons for poor access to perinatal and prenatal care experienced by our high risk populations. We may not be able to correct all of these. However, the one that could be best addressed by the Faculty is the issue of accessibility and quality of medical care provided to our poor. The faculty should initiate and/or support funding legislation that makes quality care available.

4. To achieve any of its goals, the Faculty must be cognizant of all the activities going on in Maryland with regard to this problem and be ready and willing to act promptly on issues as they evolve. The cumbersome system that has existed in the past for addressing issues will not work. Too often the time for action has passed by the time issues get endorsed or approved by the Faculty as a whole.

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- recommendation of policy to the House of Delegates on Prioritization of Health Care Expenditures and Notification of Denials by the PRO;
- AMA-HMSS Governing Council elections for the positions of Chairman, Vice-Chairman, Secretary, and one Member-at-large.

For Information Contact:

Department of Hospital Medical Staff Services
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610
Phone (312) 645-4754 or 645-4761

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June 14-17

Third Annual Trauma Anesthesia and Critical Care Symposium. Pre-symposium workshops on ATLS, ACLS, ABLS, APLS, and CRNAs also will be held. Info: MIEMSS Office of International Development, 11 S. Paca St., Ste 303, Baltimore, MD 21201 (301-328-2399).

June 24-29

Sixteenth Annual Family Medicine Review Course, Carousel Hotel, Ocean City, MD. Fee: $395; 20+ AMA and AAFP credits.

June 28-29

Ninth Annual Update in Obstetrics and Gynecology, Annapolis. Fee: $200; 14 AMA credits and ACOG cognates.

August 25

Hormonal Replacement Therapy, Baltimore. Location, fees, credits to be determined. Info: S. Stenhouse 301-328-3956.

September 14

Current Concepts in Ophthalmology: Tenth Annual Clinical Conference, Columbia Inn, Columbia. Includes the Fourth Annual Lois A. Young-Thomas Memorial Lecture. Fee; $60; 6 AMA Cat I credits.

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Departmental Rounds and Conferences - Weekly, hands-on and lecture presentation hosted by the University's clinical departments. Hour-for-hour AMA Cat I credits available. Brochure available.

Advanced Trauma Life Support Provider/Instructor Programs sponsored by University of Maryland/MIEMSS. Info: M. Nelson 301-328-2919.

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July 19-20 Provider
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September 12-14 Instructor
October 18-19 Provider
November 15-16 Provider
December 6-7 Provider

MISCELLANEOUS MEETINGS

May 2-4	**Cardiovascular Health Styles: Energizing for the 90s**. The Seventh Regions II and III Cardiovascular Risk Reduction Conference, Hershey Hotel, Philadelphia, PA. Info: D. Fedder DrPH 301-328-7613, FAX 301-328-7184; R. Ranberg 717-787-7073.
May 2-5	**American Trauma Society Seventeenth Annual Meeting**, Holiday Inn Crowne Plaza, Washington, DC. Info: Meeting Coordinator American Trauma Society, 1400 Mercantile Lane - Ste 188, Landover, MD 20785 (800-556-7890 or 301-925-8811).
May 4	**Brain Imaging in Psychiatry: A Status Report**, Noon to 1:15 p.m., reservation REQUIRED. Psychiatric Institute of Washington, 4228 Wisconsin Ave NW, Washington, DC. Info: A. Cannamela 202-965-8450.
May 9-11	**Clinical Auscultation of the Heart**, Georgetown University Medical Center, Washington, DC, sponsored by the American College of Cardiology and the Division of Cardiology, Department of Medicine, Georgetown University School of Medicine. Info: Registration Secretary, Extramural Program Dept, American College of Cardiology, 9111 Old Georgetown Rd., Bethesda, MD 20814 (800-253-4636 or 301-897-5400 ext 226).
June 4-8	**EVMS Family Medicine Review Course - Sixth Edition**, sponsored by the Department of Family and Community Medicine of the Eastern Virginia Medical School; Sheraton Beach Inn at Virginia Beach, VA. Info: 804-446-6140.
June 22-24	**Annual Meeting, The Virginia Society of Ophthalmology**, Omni International Hotel, Norfolk, VA. Info: D. Scott 804-353-2721.

Shady Grove Adventist Hospital, 9901 Medical Center Drive, Rockville, MD. Info: 301-279-6000.

May 3	Polymyalgia Rheumatica and Temporal Arteritis
May 10	Postmastectomy Breast Reconstruction
May 17	The Food and Drug Administration - Your Friend or Foe?
May 24	Growth Factors to Improve Low Blood Counts
May 31	Update on Right-to-Die Issues

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May 11

Wilmer Special Lecture Series: Surgical Approval to Uveitis, 5 - 6 p.m., Patz Lecture Room, Wilmer Eye Institute.

May 14-18

Topics in Clinical Medicine. Fee: $650 physicians, $450 residents/PAs, and nurse practitioners; 40 AMA Cat I credits. Info: C. Kearney 301-955-2959.

May 31

Wilmer Special Lecture Series: Vitrectomy for Trauma, 5 - 6 p.m., Patz Lecture Room, Wilmer Eye Institute.

June 4-15

Third Summer Institute in Environmental Health Studies. Subjects include Risk Assessment & Risk Management, Toxicology, Physiology, Occupational Health, Industrial Hygiene, Radiation Health Science, and Risk Communication. Academic or CEU credit. Info: J. Corn 301-955-2609.

June 20-23

Second Baltimore Perinatal Colloquium, sponsored by the Department of Gynecology and Obstetrics, Divisions of Maternal-Fetal Medicine, The Johns Hopkins University School of Medicine and The University of Maryland School of Medicine. Fee: physicians $450, residents $250 (with letter from department chairperson verifying status); 24 AMA cat I credits, ACOG cognates available.

July 16-20

Control of Biohazards in the Research Laboratory, sponsored by the Office of Safety & Environmental Health, The Johns Hopkins Institutions, and the Department of Environmental Health Sciences, The Johns Hopkins University, School of Hygiene and Public Health. Info: B.S. Tepper 301-955-5918 and/or J. Corn 301-955-2609.

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The Department of Radiology and Radiological Sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams 301-955-3169.

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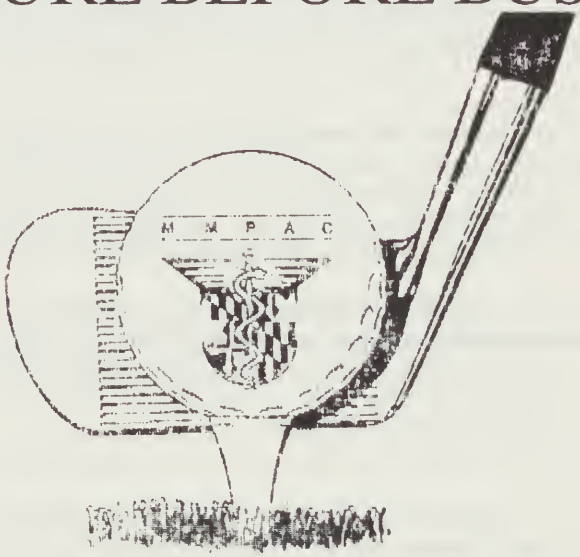
Johns Hopkins Medical Grand Rounds - Accredited audiovisual continuing education series of case discussion for clinicians; 30 topics/year in 5 bimonthly programs. Individual and group subscriptions; 40 AMA Cat I credits. Info: 301-955-3988.

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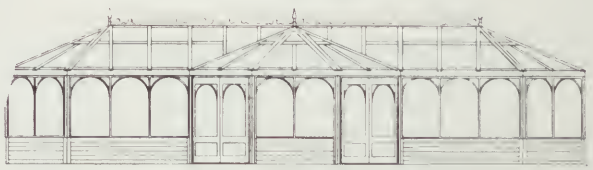
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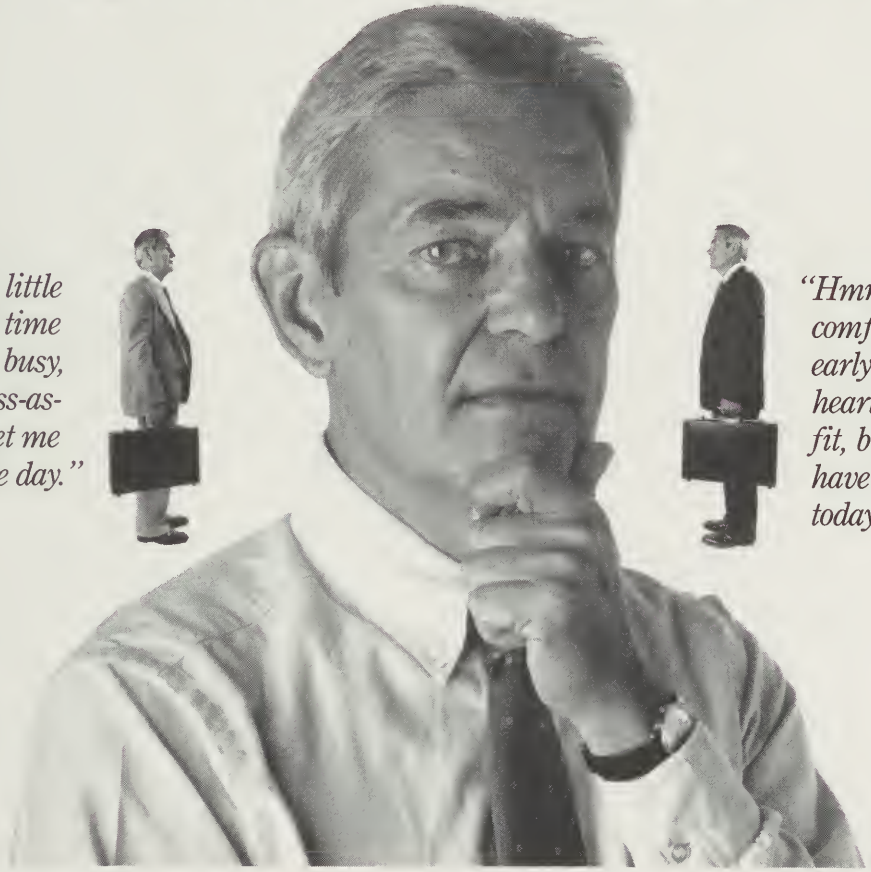
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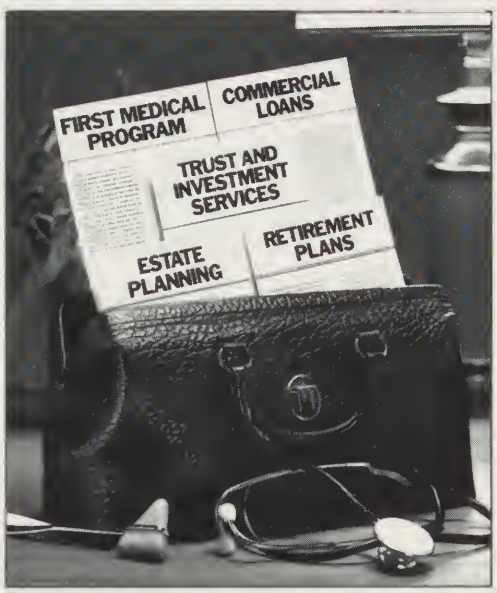
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Cover: Last featured in MMJ in September 1974 (inset photo), St. Agnes Hospital's 128-year history and the articles in this issue reflect its continuing commitment to serving the healthcare needs of the community.

Cover color photo by Jean Clayton; cover design by Virginia Carter.

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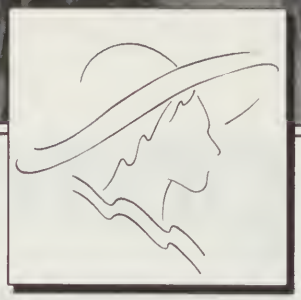
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June, 1990
Protection Against Viral Hepatitis B

The following information was taken from
Protection Against Viral Hepatitis: Recommendations of the Immunization Practices Advisory Committee (ACIP), published in the Morbidity and Mortality Weekly Report, Recommendations and Reports, February 9, 1990.

Hepatitis B Vaccine and Usage

Two types of hepatitis B vaccines are currently licensed in the U.S.: plasma-derived and recombinant hepatitis B vaccines. The recommended series of three intramuscular doses of hepatitis B vaccine induces an adequate antibody response ($\geq$10 milliInternational Units per ml) in 90% of healthy adults and in 95% of infants, children, and adolescents from birth through 19 years of age. The deltoid (arm) is the recommended site for vaccination of adults and children. The anterolateral thigh muscle is used for infants and neonates. Dosages and schedules for currently available vaccines are listed in Table 1. For patients undergoing hemodialysis or for other immunosuppressed patients, higher doses or increased numbers of doses are required. Persons with HIV infection have an impaired response to hepatitis B vaccine. The immunogenicity of higher doses of vaccine is unknown for this group, and firm recommendations on dosage cannot be made at this time.

Vaccine doses administered at longer intervals provide equally satisfactory protection, but optimal protection is not conferred until after the third dose. If the vaccine series is interrupted after the first dose, the second and third doses should be given separated by an interval of 3-5 months. Persons who are late for the third dose should be given this dose when convenient. Postvaccination testing is not considered necessary

Neither pregnancy nor lactation is a contraindication to the use of the vaccine for women who are otherwise eligible.

Postvaccination testing for serologic response is not recommended routinely but is advised for persons whose subsequent management depends on knowing their immune status or for persons who may have a suboptimal response (those who received vaccine in the buttock, persons $\geq$50 years of age, and persons with HIV infection). Postvaccination testing should be done between 1 and 6 months after completion of the vaccine series.

For adults and children with normal immune status, booster doses are not routinely recommended within 7 years after vaccination, nor is routine serologic testing to assess antibody levels necessary for vaccine recipients during this period. For infants born to hepatitis B carrier mothers, booster doses are not necessary within 5 years after vaccination. The possible need for booster doses after longer intervals will be assessed as additional information becomes available.

TABLE 1. Recommended doses and schedules of currently licensed HB vaccines

Group	Vaccine					
	Heptavax-B*,†		Recombivax HB*		Engerix-B*§	
	Dose (μg)	(ml)	Dose (μg)	(ml)	Dose (μg)	(ml)
Infants of HBV-carrier mothers	10	(0.5)	5	(0.5)	10	(0.5)
Other infants and children <11 years	10	(0.5)	2.5	(0.25)	10	(0.5)
Children and adolescents 11-19 years	20	(1.0)	5	(0.5)	20	(1.0)
Adults >19 years	20	(1.0)	10	(1.0)	20	(1.0)
Dialysis patients and other immunocompromised persons	40	(2.0)¶	40	(1.0)**	40	(2.0)¶,††

*Usual schedule: three doses at 0, 1, 6 months.
†Available only for hemodialysis and other immunocompromised patients and for persons with known allergy to yeast.
§Alternative schedule: four doses at 0, 1, 2, 12 months.
¶Two 1.0-ml doses given at different sites.
**Special formulation for dialysis patients.
††Four-dose schedule recommended at 0, 1, 2, 6 months.

Groups recommended for preexposure vaccination:

1. Persons with occupational risk;
2. Clients and staff of institutions for the developmentally disabled;
3. Hemodialysis patients;
4. Sexually active homosexual men;
5. Users of illicit injectable drugs;
6. Recipients of certain blood products, such as persons with clotting disorders;
7. Household and sexual contacts of hepatitis B virus (HBV) carriers;

8. Adoptees from countries of high HBV endemicity;
9. Other contacts of HBV carriers (such as when the carrier has behavioral (biting or scratching) problems or medical conditions (severe skin disease) that might facilitate transmission;
10. Populations with high endemicity of HBV infection;
11. Inmates of long-term correctional facilities;
12. Sexually active heterosexual persons with multiple sexual partners; and
13. International travelers who plan to reside for more than 6 months in areas with high levels of endemic HBV and who will have close contact with the local populations.

Postexposure Prophylaxis for Hepatitis B

Prophylactic treatment to prevent hepatitis B infection after exposure to HBV should be considered in the following situations: perinatal exposure of an infant born to an HBsAg-positive mother, accidental percutaneous or permucosal exposure to HBsAg-positive blood, sexual exposure to an HBsAg-positive person, and household exposure of an infant < 12 months of age to a primary care giver who has acute hepatitis B.

For an infant with perinatal exposure to an HBsAg-positive and HBeAg-positive mother, a regimen combining one dose of Hepatitis B Immune Globulin (HBIG) at birth with the hepatitis B vaccine series started soon after birth is 85%-95% effective in preventing development of the HBV carrier state. Regimens involving either multiple doses of HBIG alone, or the vaccine series alone, have 70%-85% efficacy.

For accidental percutaneous exposure, only regimens including HBIG and/or immune globulin (IG) have been studied. A regimen of two doses of HBIG, one given after exposure and one a month later, is about 75% effective in preventing hepatitis B in this setting. For sexual exposure, a single dose of HBIG is 75% effective if given within 2 weeks of last sexual exposure. The efficacy of IG for postexposure prophylaxis is uncertain. IG no longer has a role in postexposure prophylaxis of hepatitis B because of the availability of HBIG and the wider use of hepatitis B vaccine.

TABLE 2. Hepatitis B virus postexposure recommendations

	HBIG		Vaccine	
Exposure	Dose	Recommended timing	Dose	Recommended timing
Perinatal	0.5 ml IM	Within 12 hours of birth	0.5 ml IM*	Within 12 hours of birth†
Sexual	0.06 ml/kg IM	Single dose within 14 days of last sexual contact	1.0 ml IM*	First dose at time of HBIG treatment†

*For appropriate age-specific doses of each vaccine, see Table 3.
†The first dose can be given the same time as the HBIG dose but in a different site; subsequent doses should be given as recommended for specific vaccine.

In all exposures, a regimen combining HBIG with hepatitis B vaccine will provide both short and long-term protection, will be less costly than the two-dose HBIG treatment alone, and is the treatment of choice.

Perinatal Exposure and Recommendations

Infants born to HBsAg-positive and HBeAg-positive mothers have a 70%-90% chance of acquiring perinatal HBV infection, and 85%-90% of infected infants will become chronic HBV carriers. Estimates are that 25% of these carriers will die from primary hepatocellular carcinoma (PHC) or cirrhosis of the liver. Infants born to HBsAg-positive and HBeAg-negative mothers have a lower risk of acquiring perinatal infection; however, such infants have had acute disease, and fatal fulminant hepatitis has been reported. Prenatal screening of all pregnant women identifies those who are HBsAg-positive and allows treatment of their newborns with HBIG and hepatitis B vaccine, a regimen that is 85%-95% effective in preventing the development of the HBV chronic carrier state.

Recommendations:

1. All pregnant women should be routinely tested for HBsAg during an early prenatal visit in each pregnancy. This testing should be done at the same time that other routine prenatal screening tests are ordered. In special situations , an additional HBsAg test can be ordered later in the pregnancy. No other HBV marker tests are necessary for the purpose of maternal screening, although HBsAg-positive mothers identified during screening may have HBV-related acute or chronic liver disease and should be evaluated by their physicians.

2. If a woman has not been screened prenatally or if test results are not available at the time of admission for delivery, HBsAg testing should be done at the time of admission, or as soon as possible thereafter. If the mother is identified as HBsAg-positive 1 month after giving birth, the infant should be tested for HBsAg. If the results are negative, the infant should be given HBIG and hepatitis B vaccine.

3. Following all initial positive tests for HBsAg, a repeat test for HBsAg should be performed on the same specimen, followed by a confirmatory test using a neutralization assay. For women in labor who did not have HBsAg testing during pregnancy and who are found to be HBsAg-positive on first testing, initiation of treatment of their infants should not be delayed by more than 24 hours for repeat or confirmatory testing.

4. Infants born to HBsAg-positive mothers should receive HBIG (0.5 ml) intramuscularly once they are physiologically stable, preferably within 12 hours of birth (Table 2). The first dose should be given concurrently with HBIG but at a different site. If vaccine is not immediately available, the first dose should be given as soon as possible. Subsequent doses should be given as recommended for the specific vaccine. Testing infants for HBsAg and anti-HBs is recommended when they are 12-15 months of age to

monitor the success or failure of therapy. If HBsAg is not detectable and anti-HBs is present, children can be considered protected. Testing for anti-HBc is not useful, since maternal anti-HBc can persist for 1 year. HBIG and hepatitis B vaccination do not interfere with routine childhood vaccinations. Breast-feeding poses no risk of HBV infection for infants who have begun prophylaxis.

5. Household members and sexual partners of HBV carriers identified through prenatal screening should be tested to determine susceptibility to HBV infection, and, if susceptible, should receive hepatitis B vaccine.

6. Obstetric and pediatric staff should be notified directly about HBsAg-positive mothers so that neonates can receive therapy without delay after birth and follow-up doses of vaccine can be given.

7. In those populations under U.S. jurisdiction in which hepatitis B infection is highly endemic (including certain Alaskan Natives, Pacific Island groups, and refugees from highly endemic areas accepted for resettlement in the United States), universal vaccination of newborns with hepatitis B vaccine is the recommended strategy for hepatitis B control. HBsAg screening of mothers and use of HBIG for infants born to HBV-carrier mothers may be added to routine hepatitis B vaccination when practical, but screening and HBIG alone will not adequately protect children from HBV infection in endemic areas. In such areas, hepatitis B vaccine doses should be integrated into the childhood vaccination schedule. More extensive programs of childhood hepatitis B vaccination should be considered if resources are available.

Acute Exposure to Blood That Contains (or Might Contain) HBsAg

For accidental percutaneous (needle stick, laceration, or bite) or permucosal (ocular or mucous-membrane) exposure to blood, the decision to provide prophylaxis must include consideration of several factors: a) whether the source of the blood is available, b) the HBsAg status of the source, and c) the hepatitis B vaccination and vaccine-response status of the exposed person. Such exposures usually affect persons for whom hepatitis B vaccine is recommended. For any exposure of a person not previously vaccinated, hepatitis B vaccination is recommended.

Following any such exposure, a blood sample should be obtained from the person who was the source of the exposure and should be tested for HBsAg. The hepatitis B vaccination status and anti-HBs response status (if known) of the exposed person should be reviewed. The outline below and Table 3 summarize prophylaxis for percutaneous or permucosal exposure to blood according to the HBsAg status of the source of exposure and the vaccination status and vaccine response of the exposed person.

For greatest effectiveness, passive prophylaxis with HBIG, when indicated, should be given as soon as possible after exposure (its value beyond 7 days after exposure is unclear).

1. Source of exposure HBsAg-positive

a. Exposed person has not been vaccinated or has not completed vaccination. Hepatitis B vaccination should be initiated. A single dose of HBIG (0.06 ml/kg) should be given as soon as possible after exposure and within 24 hours, if possible. The first dose of hepatitis B vaccine (Table 1) should be given intramuscularly at a separate site (deltoid for adults) and can be given simultaneously with HBIG or within 7 days of exposure. Subsequent doses should be given as recommended for the specific vaccine. If the exposed person has begun but not completed vaccination, one dose of HBIG should be given immediately, and vaccination should be completed as scheduled.

b. Exposed person has already been vaccinated against hepatitis B, and anti-HBs response status is known.

(1) If the exposed person is known to have had adequate response in the past, the anti-HBs level should be tested unless an adequate level has been demonstrated within the last 24 months. Although current data show that vaccine-induced protection does not decrease as antibody level wanes, most experts consider the following approach to be prudent.

a) If anti-HBs level is adequate ($\geq$10 mIU/ml), no treatment is necessary.

b) If anti-HBs level is inadequate, a booster dose of hepatitis B vaccine should be given.

(2) If the exposed person is known not to have responded to the primary vaccine series, the exposed person should be given either a single dose of HBIG and a dose of hepatitis B vaccine as soon as possible after exposure, or two doses of HBIG (0.06 ml/kg), one given as soon as possible after exposure and the second 1 month later. The latter treatment is preferred for those who have failed to respond to at least four doses of vaccine.

c. Exposed person has already been vaccinated against hepatitis B and the anti-HBs response is unknown. The exposed person should be tested for anti-HBs.

(1) If the exposed person has adequate antibody, no additional treatment is necessary.

(2) If the exposed person has inadequate antibody on testing, one dose of HBIG (0.06 ml/kg) should be given immediately and a standard booster dose of vaccine (Table 1) given at a different site.

2. Source of exposure known and HBsAg-negative

a. Exposed person has not been vaccinated or has not completed vaccination. If unvaccinated, the exposed person should be given the first dose of hepatitis B vaccine within 7 days of exposure, and vaccination should be completed as recommended. If the exposed person has not completed vaccination, vaccination should be completed as scheduled.

b. Exposed person has already been vaccinated against hepatitis B. No treatment is necessary.

3. Source of exposure unknown or not available for testing

a. Exposed person has not been vaccinated or has not completed vaccination. If unvaccinated, the exposed person should be given the first dose of hepatitis B vaccine within 7 days of exposure and vaccination completed as

TABLE 3. Recommendations for hepatitis B prophylaxis following percutaneous or permucosal exposure

	Treatment when source is found to be:		
Exposed person	**HBsAg-positive**	**HBsAg-negative**	**Source not tested or unknown**
Unvaccinated	HBIG x 1* and initiate HB vaccine†	Initiate HB vaccine†	Initiate HB vaccine†
Previously vaccinated Known responder	Test exposed for anti-HBs 1. If adequate,§ no treatment 2. If inadequate, HB vaccine booster dose	No treatment	No treatment
Known nonresponder	HBIG x 2 or HBIG x 1 plus 1 dose HB vaccine	No treatment	If known high-risk source, *may treat as if source were HBsAg-positive*
Response unknown	Test exposed for anti-HBs 1. if inadequate,§ HBIG x 1 plus HB vaccine booster dose 2. If adequate, no treatment	No treatment	Test exposed for anti-HBs 1. If inadequate§, HB vaccine booster dose 2. If adequate, no treatment

*HBIG dose 0.06 ml/kg IM.
†HB vaccine dose - see Table 3.
§Adequate anti-HBs is ≥10 SRU by RIA or positive by EIA.

recommended. If the exposed person has not completed vaccination, vaccination should be completed as scheduled.

b. Exposed person has already been vaccinated against hepatitis B, and anti-HBs response status is known.

(1) If the exposed person is known to have had adequate response in the past, no treatment is necessary.

(2) If the exposed person is known not to have responded to the vaccine, prophylaxis as described earlier in section 1.b.(2) under "Source of exposure HBsAg-positive" may be considered if the source of the exposure is known to be at high risk of HBV infection.

c. Exposed person has already been vaccinated against hepatitis B, and the anti-HBs response is unknown. The exposed person should be tested for anti-HBs.

(1) If the exposed person has adequate anti-HBs, no treatment is necessary.

(2) If the exposed person has inadequate anti-HBs, a standard booster dose of vaccine should be given.

Sexual Partners of Persons with Acute HBV Infection

Sexual partners of HBsAg-positive persons are at increased risk of acquiring HBV infection, and HBIG has been shown to be 75% effective in preventing such infections. Because data are limited, the period after sexual exposure during which HBIG is effective is unknown, but extrapolation from other settings makes it unlikely that this period would exceed 14 days. Before treatment, testing of sexual partners for susceptibility is recommended if it does not delay treatment beyond 14 days after last exposure. Testing for anti-HBc is the most efficient prescreening test to use in this population.

All susceptible persons whose sexual partners have acute hepatitis B infection or whose sexual partners are discovered to be hepatitis B carriers should receive a single dose of HBIG (0.06 ml/kg) and should begin the hepatitis B vaccine series if prophylaxis can be started within 14 days of the last sexual contact, or if ongoing sexual contact with the infected person will occur. Giving the vaccine with HBIG may improve the efficacy of postexposure treatment. The vaccine has the added advantage of conferring long-lasting protection.

An alternative treatment for persons who are not from a high-risk group for whom vaccine is routinely recommended and whose regular sexual partners have acute HBV infection is to give one dose of HBIG (without vaccine) and retest the sexual partner for HBsAg 3 months later. No further treatment is necessary if the sexual partner becomes HBsAg-negative. If the sexual partner remains HBsAg-positive, a second dose of HBIG should be given and the hepatitis B vaccine series started.

Household Contacts of Persons with Acute HBV Infection

Since infants have close contact with primary care givers and they have a higher risk of becoming HBV carriers after acute HBV infection, prophylaxis of an infant < 12 months of age with HBIG (0.5 ml) and hepatitis B vaccine is indicated if the mother or primary care giver has acute HBV infection. Prophylaxis for other household contacts of persons with acute HBV infection is not indicated unless they have had identifiable blood exposure to the index patient, such as by sharing toothbrushes or razors. Such exposures should be treated similarly to sexual exposures. If the index patient becomes an HBV carrier, all household contacts should be given hepatitis B vaccine.

CDC VIRAL HEPATITIS HOTLINE

For the purpose of disseminating comprehensive information on viral hepatitis, the CDC has established a "hotline" number---(404) 332-4555. Please use this number and provide this number to any interested persons.



THERAPY THAT MAY BE AS SILENT AS HYPERTENSION ITSELF

VASOTEC is generally well tolerated and not characterized by certain undesirable effects associated with selected agents in other antihypertensive classes.

VASOTEC is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

A diminished antihypertensive effect toward the end of the dosing interval can occur in some patients.

For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

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ONCE-A-DAY

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VASOTEC®

(ENALAPRIL MALEATE | MSD)

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions.*)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy – Category C: There was no tetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); pulmonary embolism and infarction; pulmonary edema; rhythm disturbances; atrial fibrillation; palpitation.

Digestive: Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, contusion, ataxia, somnolence, insomnia, nervousness, paresthesia

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Extoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced morbility in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects.*) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia: In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure,* WARNINGS, and PRECAUTIONS, *Drug Interactions.*) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486. J9VS61R2(819)

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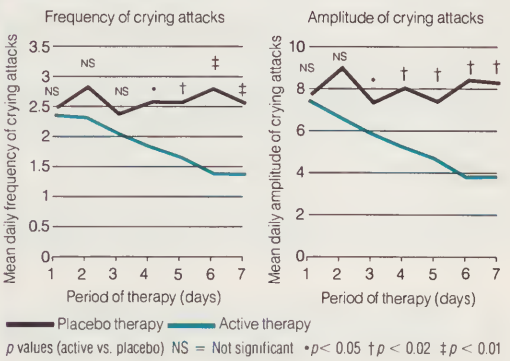
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1. Kanwaljit SS, Jasbir KS. Simethicone in the management of infant colic. *Practitioner.* 1988;232:508.

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Executive Director's Newsletter

June 1990

Reynaldo L. Lee-Llacer MD New Med Chi President

On May 11, 1990, Reynaldo L. Lee-Llacer MD became Med Chi's President for 1990-1991. During the Annual Meeting in May, Dr. Lee-Llacer said that he hopes to uphold the quality standards of care practiced in Maryland during the coming year and looks forward to a successful year as President of Med Chi.

Workers' Compensation Commission

Med Chi physicians are reminded that, under the Workers' Compensation Law, the employer and workers' compensation insurance carrier are responsible for the payment of the medical bills and not the Workers' Compensation Commission. If you do not know the name of the employer's insurance carrier, the bill should be forwarded to the employer with the request that it is to be sent to the carrier for payment. If the employer does not carry workers' compensation insurance, the employer is responsible for payment. If the health provider's bill is refused for payment by the insurer, you may file a claim with the Commission using the Commission's form C-51, but this is only to be filed after the bill has been refused or ignored. For more information regarding the Workers' Compensation Law, contact Lourenna E. Fisher, Secretary to the Workers' Compensation Commission at 301-333-4700.

Peer Review Handbook

In April, Med Chi in conjunction with the Board of Physician Quality Assurance (BPQA) introduced its *Peer Review Handbook* during the Federation of State Medical Boards of the United States Annual Meeting. The *Handbook*, a guide outlining the process for the review of physicians by their peers, was highly recommended by the Federation as a model program for other peer review programs in the US.

AIDS Testing

Physicians are reminded that effective November 1, 1989 healthcare providers (physicians, nurses, or designees of a healthcare facility) are required to do the following before obtaining a blood sample from an individual for the purpose of testing the blood for the presence of HIV infection:

1. Obtain written consent from the individual on a uniform HIV consent form developed by the Department of Health and Mental Hygiene.

2. Provide the individual with pretest counseling that includes: (a) education about HIV infection, (b) information about a physician's duty to warn, (c) assistance in accessing health care available to an individual who tests positive.

For further information on this matter, contact Greg Hall, Legal Counsel for the Faculty at 301-539-0872 or toll free 1-800-492-1056.

Doctors in Annapolis

Med Chi would like to thank all the physicians who participated as "Doctor of the Day" during this year's General Assembly Session. More than 54 physicians volunteered to staff the first aid room in the State House in Annapolis during the 64-day session. Med Chi and its physician members have staffed the first aid room for every legislative session since 1964 and greatly appreciate your participation in this endeavor.

Utilization Review for BC/BS Physicians of National Capital Area

Physicians participating in Blue Cross and Blue Shield of the National Capital Area (BCBSNCA) are reminded that their participation in BCBSNCA requires their cooperation in Utilization review audits in order to identify problems with overutilization. The following description of the BCBSNCA Utilization Review program is provided for your information.

Utilization Review (UR) The UR program at BCBSNCA for physicians and other health professional providers is administered by the Medical Affairs Division under the direction of the Senior Medical Director, Dr. Jack Kleh. Audits are conducted by registered nurses and supported by claims analysts and clerical personnel. UR has the responsibility of identifying those providers who do not adhere to accepted medical practice, as well as widespread inappropriate use of services, and taking corrective action. A panel of practicing physicians serves as advisors to this division and questionable cases are adjudicated by a professional panel comprised of local practicing physicians.

The primary objectives of UR are the prevention of overutilization and misutilization of health care services and the correction of aberrancies through informational and educational programs developed cooperatively with providers and their professional organizations. This process encourages communication with the healthcare community and allows for clarification of BCBSNCA's plans, policies, and procedures.

Defining the Problem Overutilization is unnecessary or repetitive performance of a covered service that is not clinically indicated or is not is conformity with the accepted practice of medicine in the community.

Misutilization is defined as the reporting of services not performed, the reporting of an ineligible service as an eligible one, or the upgrading of a service to obtain a higher fee. This may involve fraudulent actions on the part of either patient or provider.

Case Selection BCBSNCA uses various techniques to identify problems. They include:

Routine random audits: All providers are subject to audits that are routine in nature and randomly selected. These audits include the review of medical records and patient financial statements from the provider.

Investigation of Complaints: Many reviews are initiated by complaints from BCBSNCA subscribers or providers. UR pursues all complaints to resolution.

Special Studies: These are performed as a result of discrepancies uncovered during claims reviews. Claims are randomly selected and each claim is

verified through patient questionnaires and record reviews. UR may have several special studies under way at any given time.

Statistical Review of Cumulative Claims Payment Data: Computer listing of paid claims are generated for every provider reporting services to BCBSNCA which are then analyzed to detect unusual utilization, charge, or payment patterns.

Prepayment Review of Unusual Claims: These reviews are conducted before final processing is completed and the claim is paid. These provider or procedure specific reviews are in addition to the usual prepayment examination of all claims carried out in claims' processing areas. Criteria for initiating prepayment reviews vary as experience in processing claims increases. Examples of criteria used are:

-services frequently billed incorrectly
-services frequently overutilized

Special Research Studies: UR frequently conducts special studies to identify new areas for review and to assess the adequacy of the present system to assure cost-effective, quality health care.

Review Process A case is initiated when a potential problem is identified; it may involve any of the following steps. A UR case can be closed at any stage if the information developed provides a satisfactory explanation of the problem detected.

-Statistical Review: A statistical analysis of a providers' claims experience with peer group comparisons of practice patterns.

-Patient contacts: When appropriate, questionnaires may be sent to patients to verify that the services billed to BCBSNCA were rendered as reported. From time to time, patients may be interviewed by UR personnel. In either case, answers to the following questions are sought:

-For what medical problems did you visit the provider?
-When did you see the provider?
-What services were rendered?
-Did you make any payment toward these services, if so how much?

These patient contacts always are presented as routine verification of services paid by BCBSNCA. Plan personnel are trained to never comment on the appropriateness or quality of care and to avoid any improper reflection on the providers.

Discrepancies between information reported on the claim form and the patient's recollection of these services performed are pursued carefully. Every effort is taken to assess the reliability off the patient and the accuracy of the statements made.

The Utilization Review Analysts Hospital and office records and the patients' questionnaires are reviewed and analyzed by the UR analyst. They also review statistical information and prepare summaries of individual practice patterns for a random selection of patients, covering a period of at least one year.

The Utilization Review Nurse The analyst's summary is reviewed, and as necessary, the nurse re-reviews each case for medical indications and appropriateness of care and questionable cases are prepared for medical advisor review. The nurse then prepares a written report of case findings, i.e., aberrant practice patterns, overutilization, and/or other problems.

Medical Advisor Review BCBSNCA has 26 specialties represented on the Medical Advisor Panel, all of whom are Board Certified Physicians in local private practice. When a case is submitted for review, the medical advisor provides written comment on the patterns of practice.

Physician/Provider Contact At the completion of the review, the provider is sent a detailed letter outlining the case findings. If a refund to BCBSNCA is indicated, it is requested at this time. The provider also is advised of his/her right of appeal and that additional information may be submitted for review.

The Committee on Provider Services Any UR Case that cannot be resolved between the Utilization Review staff and the provider under review can be referred to the Committee on Provider Services (CPS). Such a referral can be initiated by either the UR staff or the physician and/or provider. The CPS is charged, under BCBSNCA's Bylaws, with the resolution of disputes with physicians or other providers, and the Committee is empowered to take a wide range of actions to resolve issues brought before them. Any one or more of the following actions may be taken by the Committee:

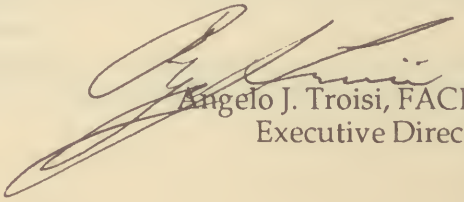
1. Refer the case to the appropriate state or local professional society for recommendation or action.
2. Refer the matter to the appropriate federal, state, or local law enforcement agency.
3. Refer the matter to the appropriate State Board of Professional Licensure.
4. Consider the review provider's participating status.
5. Direct further study by BCBSNCA staff.
6. Request the provider to make an appropriate refund and correct his or her reporting practice.

The decisions of the CPS are final.

Resolution Following a decision by the CPS, UR contacts the provider to finally resolve the problem. This may involve a change in the provider's reporting of services and may require the provider to refund overpayment.

Quality of Care The Medical Affairs Division also supports programs to improve the quality of care provided by BCBSNCA subscribers. UR is involved in the development of several new programs aimed at improving healthcare delivery and arranging financing that improves quality of care available by locality.

Summary The major thrust of the program is to prevent overutilization of healthcare services through the education of providers and subscribers. If you accept the premise that no one benefits from unnecessary medical costs, then you are in agreement with the Utilization Review program at BCBSNCA. For further questions regarding the BCBSNCA Utilization Review program contact Cora Yao, Assistant Supervisor for Utilization at 202-479-8000.



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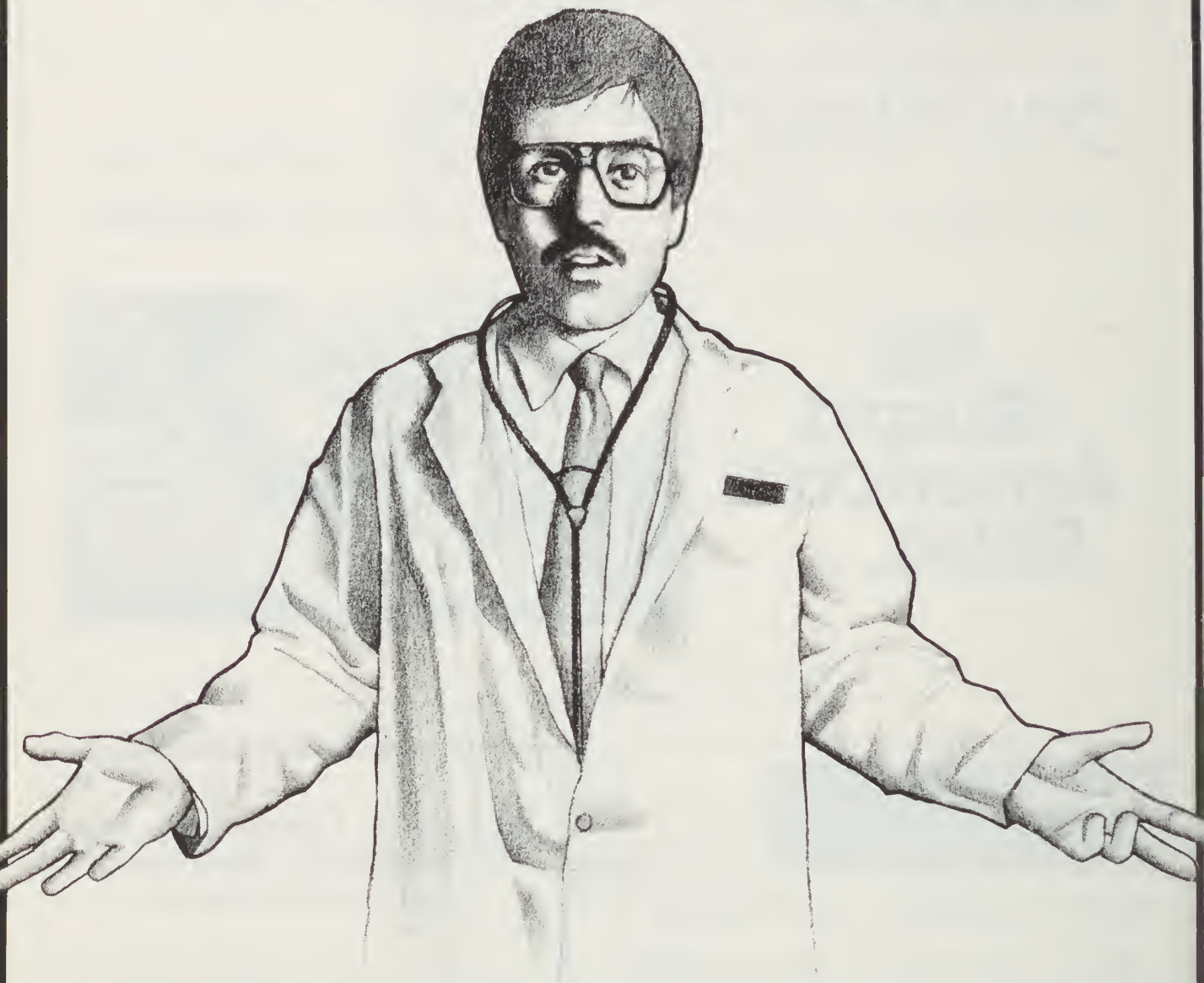
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St. Agnes: A Community Teaching Hospital

Francis J. Viozzi MD

Dr. Viozzi is Senior Vice President/Medical Director at St. Agnes Hospital.

Because Maryland is the home of three major medical universities we are accustomed to hearing about significant clinical advances, research breakthroughs, and frequent epidemiologic studies as a matter of course. Our provider worlds, including both physicians and facilities, encompass the entire spectrum of specialization. Amidst this array of services and facilities, interacting with them at all levels, is the community teaching hospital.

St. Agnes Hospital is pleased to bring you this issue of the *Maryland Medical Journal*. A perusal of the article titles helps define our hospital's role in this medical milieu. The papers submitted by attending and resident staff reinforce our commitment to resident education and underscore its importance in maintaining the quest for academic excellence.

We have addressed both clinical and public health issues. Dr. Gillilan and his colleagues have studied the experience of our hospital in a community program, the cardiac outpatient rehabilitation program, which has an admixture of clinical, educational, and preventive aspects.

Utilization and quality assurance issues are discussed in the article by Dr.Ranjan et al., which addresses the appropriateness of routine operative cholangiography.

Unusual disorders appear sporadically, and our staff must recognize and cope appropriately with them. This aspect is reflected in case reports about scurvy, a lateral lumbar synovial cyst, thyrotoxic periodic paralysis, and phenytoin hypersensitivity.

Community hospitals must bridge the gap between technologically rich, research-oriented institutions and the populations they serve. Drs. Kramer and Tippett use the state-of-the-art magnetic resonance imaging to define a clinical problem.

Last, but hardly least, our commitment to the health of the community is reflected in Dr. Susel's paper that considers the operation of an eye bank.

As these articles point out, we consider our obligation to our community's healthcare needs to be paramount. We take seriously and are appropriately introspective about our commitment to resident education. Our medical staff is clinically excellent, and its questioning nature facilitates investigation of clinical dilemmas. Notable by its absence is bench research: we do not include it in our mission. We do reach out to the community in ways we hope will improve its health status. ■

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Rehabilitation of Cardiac Outpatients: A Community Hospital Experience in the 1980s

Ronald Gillilan MD; Katharine Beasley RN, BS; Elizabeth Booth RN, BSN; Annette DeAngelis; J. Richard Warbasse MD; and Stephen Plantholt MD

From St. Agnes Hospital's Department of Cardiology.

St. Agnes Hospital's decade of experience with outpatient rehabilitation of coronary heart disease patients shows that exercise conditioning plays an important role in their return to even strenuous work after suffering a myocardial infarction.

In the 1970s cardiac rehabilitation programs developed widespread acceptance as a means of assisting patients with coronary heart disease (CHD) return to normal living. Medically supervised exercise became the mainstay of such rehabilitative efforts, with more than 40 centers in Maryland having facilities and trained staff to assist patients with myocardial infarction (MI), angina pectoris (AP), or coronary bypass surgery become physically fit.[1]

The late 1980s saw the decline of some such programs, due at least in part to the reluctance of a major insurance carrier in Maryland to pay for cardiac rehabilitation and to the failure of many physicians to send their patients for the service. As noted by Smith, cardiac rehabilitation services are greatly underused, with only 20 percent of patients with MI, AP, and/or recent coronary bypass or angioplasty in the United States being given the opportunity of such services.[2]

This report examines more than a decade of experience of St. Agnes Hospital's Cardiac Outpatient Rehabilitation (COR) program, points out some lessons learned as data have emerged from clinical trials, and discusses trends and possible directions for the 1990s for such rehabilitative efforts.

Prescription Exercise in Cardiac Rehabilitation

Medically supervised exercise has been a key element in cardiac rehabilitation programs. Patients with recent MI often are physically unfit, not just because they have been at bed rest a few days but because of a lifestyle that for years has neglected essential health practices. Although shortened hospital stay for acute myocardial infarction (AMI) has helped reduce the deconditioning effects of prolonged bed rest, regular exercise still has an important role in the rehabilitation of most patients with CHD. In the process of restoring regular exercise as an essential health practice, patients learn sensible limits for their physical activities. Exercise programs provide information along with exercise as a treatment modality for patients with heart disease.

In recent years, the vast experience gained (both in this country and abroad) in rehabilitation of patients with heart disease has

taught us much about the safety of relatively vigorous exercise and has shown that many patients can return to jobs that in earlier years would have been prohibited. Conditioning exercise is not without risk in the coronary population, hence the need for monitoring and medical supervision. As discussed below, the COR program has a high proportion of patients with severe coronary disease, yet there have been only 3 untoward cardiac events in the entire 13-year experience of the program. This emphasizes the fact that many patients with severe heart disease need not be denied the benefits of exercise. A survey of 167 randomly selected cardiac exercise programs in the early 1980s showed that prescribed exercise can be delivered with low risk of unfortunate cardiovascular events.[3]

Given the propensity for cardiac events in patients with advanced disease, as is the case of most of our patients in COR, it is appropriate to have them exercise under medical supervision. There have been two cardiac arrests and one AMI in 43,786 patient hours of exercise in COR. Neither of the cardiac arrests were directly related to exercise: one patient collapsed before beginning exercise and the other did so while having the admission history and physical for entrance into the program. Prompt resuscitation efforts were successful for one patient who went on to have an implanted defibrillator for control of severe arrhythmias. The other patient did not survive cardiac arrest due to extensive heart disease. The patient who had an AMI failed to inform the staff before beginning exercise that he had been having recurrent chest pain earlier in the day. This patient made a good recovery from his infarction, which probably was in progress when he arrived at the program. The lesson here is the need to teach patients and their spouses to recognize the early signs of heart attack and to get prompt attention for such symptoms. Programs such as COR offer an important opportunity for such teaching to occur.

Inasmuch as COR is a hospital-based program that utilizes electrocardiogram (ECG) and blood pressure monitoring, patients with advanced coronary disease increasingly are included. In 38 consecutive referrals to COR, 24 (63 percent) patients had complex ventricular arrhythmias, 5 (13 percent) had very limited exercise tolerance (less than 3 minutes on the Bruce treadmill test), 3 (8 percent) had marked ischemia on the ECG during exercise testing, and 2 (5 percent) patients had exertional hypotension. Such patients are not good candidates for an unsupervised exercise program.

Greenland and Chu point out that the most severely limited patient can be expected to make the most meaningful achievements in exercise programs.[4] We studied 22 patients (13 men; 9 women), ages 43 to 69 years who had severely limited exercise tolerance on maximal treadmill testing (failure to complete stage 1 of Bruce protocol) because of coronary disease. These patients exercised 2 to 3 times weekly in COR for a mean of 23 weeks. Follow-up treadmill testing showed an average improvement in exercise capacity of 156 percent, with estimated maximal oxygen consumption increasing from 1.77 to 25.30 ml/Kg/min ($p < 0.01$). Such remarkable improvement in exercise tolerance in 15 of 22 patients who initially were severely limited makes it clear that cardiac rehabilitation efforts have a place in the treatment of patients who still are incapacitated by their disease despite the best efforts of medical and surgical therapy.

Monitoring cardiac patients during exercise by a trained staff (which in the case of COR consists of a coronary care nurse, an exercise technologist, and a cardiologist) not only has helped to assure safety in the COR program but also has provided early detection of important diagnostic and treatment needs. In 50 patients with coronary disease referred for rehabilitation, 19 (38 percent) had diagnostic and treatment decisions made during 14 weeks of participation in this ECG monitored exercise program.[5] Such decisions were made by the referring physician, based on data provided by the COR cardiologist on frequency of chest pains, severity of hypertension, and extent of exercise-induced complex ventricular arrhythmias. We believe early intervention initiated due to the observations made by the COR staff prevented more serious events in the course of the patient's disease. In some instances, patients who had refused cardiac catheterization or surgery were willing to go ahead with such needed procedures after their favorable experiences with the staff and other patients in COR.

There were noteworthy developments in the programing of exercise for patients with heart disease in the 1980s. With experience showing that sensible aerobic exercise is relatively safe in patients with coronary disease, it became possible to look at physical activities other than the traditional walking, jogging, biking, and rowing to add variety to fitness programs. Community based, medically supervised exercise programs offered pools for swimming and gymnasiums with opportunities for volleyball, basketball, and other sports.

Compliance: Over- and Underachievers

We studied 40 men (who had documented coronary disease) with Holter monitoring of ECG during exercise in a community gymnasium to determine compliance of patients to their exercise prescription. The ambulatory recording of ECG during exercise showed that 32 percent of patients overachieved by exceeding their prescribed exercise limits, while 28 percent (11) of patients underachieved to a level of exercise that could not be expected to produce fitness.[6]

Patients who tend to overachieve during exercise concern treating physicians, particularly when those patients are left to do home exercise programs at their own pace or to work out in an gymnasium or spa without medical supervision. In medical practice we are aware that some patients tend to work and play too hard, and we are perhaps lulled into a sense of security that our patients will follow our advice to take it easy.

But in a rehabilitation program with trained medical observers, it becomes obvious that some patients do not follow the advice given.

We found that in 21 patients who had Holter recordings during a home exercise program, only 33 percent (7 patients) stayed within the limits of exercise prescription during their workout. Of these 21 patients with coronary disease, ambulatory recordings revealed that 6 (29 percent) patients had ischemic ST-segment depression on ECG and 4 (19 percent) patients had complex ventricular arrhythmias during their overly zealous exercises at home.[7] On questioning, 3 (14 percent) patients had experienced anginal pains during bike riding or walk/jog activities done without supervision. Using a walk/jog, self-efficacy scale of perceived exercise, we have been able to discriminate between overachievers and underachievers.[8] Further work is needed in the area of psychological testing to help identify patients who may be at higher risk of a cardiac event during exercise sessions because of the tendency to exceed the safe limits of their exercise prescription.

Another development in exercise methods has been the attention given to more specificity in training, thus targeting specific muscle groups for improvement in function for a particular job or avocational skill. Experience in Maryland showed that circuit weight training could be safely and effectively used within certain guidelines with patients with coronary disease.[9] Thus patients who have to return to a job that requires lifting can be monitored and trained with particular emphasis on upper extremity resistance exercises in a medically supervised environment before returning to work.

A trend in the patient population of COR over the past few years has been an increased number of individuals who have had coronary bypass surgery or coronary angioplasty. By the mid-1980s, of 80 attendees, 19 (24 percent) had bypass surgery, and 9 (11 percent) had undergone angioplasty of their coronary arteries. By the end of the 1980s, 27 (33 percent) of 82 patients participating had bypass surgery and 14 (17 percent) had angioplasty. These patients are particularly good candidates for supervised exercise programs, as such monitoring provides data to the treating physician during the first several postoperative months, when reocclusion is most likely to occur. The patient also has the opportunity to explore with the rehabilitation staff whether various symptoms should give concern. Patients who have had surgical intervention for their coronary disease need no less an effort at risk-factor intervention and exercise conditioning. As yet insurance carriers have not been willing to pay for rehabilitation of the postangioplasty patient. Controlled clinical trials to provide further support for the benefits of rehabilitation services in the postangioplasty period likely will be forthcoming.

While a sedentary lifestyle is recognized as a risk factor for coronary disease, it has been difficult to prove that exercise conditioning in patients with coronary disease lowers the risk. A recent study that received widespread attention showed a significantly lower heart attack rate in healthy subjects because of physical conditioning with higher treadmill performance.[10]

O'Connor et al. reviewed various controlled clinical trials examining the effects of exercise conditioning on mortality and found that, while no single trial achieved statistical significance, cardiac rehabilitation programs that included exercise showed an overall reduction in risk of death by 20 percent.[11]

ECG monitoring in the COR program has provided a battery of information to assist the cardiologist in making treatment decisions regarding ventricular arrhythmias. At present there is considerable uncertainty as to the appropriate use of antiarrhythmic agents for such patients. Telemetered ECG programs provide the treating physician with additional data about the success of various antiarrhythmic treatments.

We analyzed the ventricular arrhythmias in 100 subjects (84 men, 16 women; mean age 54 years) with coronary disease who were referred to COR. There were complex and frequent ventricular arrhythmias (Lown grades III-V) in 32 percent (32 of 100) of patients during the initial week of participation in ECG monitored exercise. By the last week of telemetered exercise, there had been a statistically significant decrease in both severity and frequency of complex arrhythmias in these patients (4 percent or 4 of 100 patients continued to have grades III-V arrhythmias). This is not to imply that exercise necessarily played a major role in reducing the arrhythmias, as antiarrhythmic drug therapy was instituted or revised in many instances. While there is no control population for comparison in this preliminary study, the data show that the COR program provides physicians with important data to assist in treating patients with cardiac arrhythmias.

Risk-Factor Intervention

As the decade of the 1980s has given us thrombolytic therapy for the patient with AMI and angioplasty for the person with angina pectoris, an increasing awareness has developed that prevention of the progression of coronary disease through risk-factor intervention also must be included in the physician's weapons against atherosclerosis.

Although cardiac rehabilitation programs traditionally have emphasized exercise conditioning for patients recovering from MI, patient education on the role of risk factors in coronary disease has been an important component of such programs. It has been our experience that a substantial number of patients referred to COR have modifiable risk factors, thus providing the opportunity for the cardiac rehabilitation team to include management of factors tending to cause progression of the disease. Rehabilitation programs have increasingly become involved in coronary risk-factor intervention.

In a survey of 80 patients (62 men, 18 women; age

range 32 to 75 years) with established CHD who were referred to COR for rehabilitation, 32 (40 percent) patients had a history of hypertension, 22 (28 percent) were at least 20 percent overweight, 21 (26 percent) had a total cholesterol level of greater than 260 mg percent, and 10 (12 percent) of the 80 subjects still smoked. While some interventions are beyond the scope of present practices and resources of rehabilitation programs, patients are given education, encouragement, and support to help motivate appropriate behavioral changes.

A growing interest in the COR program has been in dietary intervention for hyperlipidemia (HL). Not only was this risk factor prevalent in our population, but also findings of a survey of our referring physicians indicated a need for a service to assist with this intervention. Of the 24 physicians who referred the 80 patients mentioned above, 71 percent thought that patients were inattentive to lifestyle recommendations and were not likely to follow dietary recommendations. Furthermore, 38 percent of the referring physicians indicated there was insufficient time in their office practice to influence such behavioral changes, and 70 percent noted a need for better skills to appropriately manage the patients with HL.

During the last decade, the COR program has focused increasingly on providing this needed support service for lipid management.

Studies such as the Lipid Research Clinics Primary Prevention Trial have provided strong evidence that lowering elevated blood cholesterol significantly reduces the risk of coronary events in asymptomatic men.[12] The NHLBI Coronary Intervention Study gives reason to believe that treating hypercholesterolemia in patients with established coronary disease can slow the progression of atherosclerotic lesions.[13]

Inasmuch as patients participating in COR attend sessions for several months, there is perhaps an unparalleled opportunity to affect behavioral changes related to eating habits. The staff for the service is comprised of the COR nurse trained in risk-factor interventional skills, the nutritionist, and a cardiologist interested in preventive cardiology. Computer support for diet analysis has been an important element of the program.

While influencing behavioral changes related to diet is never easy and there is still much to be learned about this important intervention, data from our program suggest that the cardiac rehabilitation program setting is appropriate for lipid management. In 27 patients having follow-up a mean of 43 months (SD 8.9 months) after entering COR, there continued to be significantly lower mean total cholesterol levels (214 mg/dl vs. 252 mg/dl) than at entry into the COR program. We have no control group of untreated subjects for comparison, nor is there data on patients who have been lost to follow-up, but the trend in lipid levels is encouraging in our participating patient population.

While lipid management can be offered in cardiac rehabilitation programs, there is a cost of time and effort to provide the service. Not only are the services of a nutritionist needed, but also in our experience, roughly 3.5 hours of additional staff time are required for the initial evaluation and counseling of a patient. Further training among the staff also is required to be knowledgeable about lipids and to be effective in helping with such behavior modification. The American Heart Association has been particularly helpful in providing such support.

Patient Education and Psychosocial Support

Early hospital discharge of patients following an AMI has placed a greater burden on outpatient services for providing the education and guidance patients require to cope successfully with CHD. In the past, there were often several weeks of hospitalization during which the patient was counseled about the nature of coronary disease, emotional adjustment, physical activity, sex, recreation, family relationships, and risk-factor intervention. At present, with limited hospital stay, the patient is busy with various testing procedures, leaving little opportunity for professional staff to address psychosocial, economic, and vocational adjustment issues.

Outpatient cardiac rehabilitation programs can and often do fill a vital educational and psychosocial support need for patients with CHD. An improved sense of physical and emotional well-being has been the general experience of participants in such programs, but there is need for more documentation of outcomes through careful behavioral scientific research.[7]

The goals of rehabilitation programs include educating the patient about risk factors, assisting in making lifestyle changes that may reduce the chances of another MI, and helping the family understand and cope successfully with the impact of coronary disease. Such educational efforts for the patient and his/her family must teach the importance of recognizing when chest pain requires the immediate medical attention. Far too many patients with chest pain do not reach an emergency room in time for appropriate intervention.

Conclusion

We have discussed a decade of St. Agnes Hospital's experience with CHD outpatient cardiac rehabilitation. Exercise conditioning still plays an important role in the rehabilitation of such patients, and experience has taught that many patients can return to strenuous work after suffering a MI. The environment of cardiac rehabilitation provides a good opportunity for patient education and behavior modification. New directions for the future for such programs have emerged from the progress that has been made in the 1980s. There is a need for greater utilization of this important service for patients with angina pectoris.

The monitoring of patients in cardiac rehabilitation programs during their return to normal living habits following MI, bypass surgery, or angioplasty provides

the physician with valuable data for the management of patients with coronary disease.

References

1. Cardiac Rehabilitation Programs Inventory, Cardiovascular Nursing Education Subcommittee, American Heart Association, Maryland Affiliate, Inc., 1983-1984.
2. Smith LK. Cardiac rehabilitation: A supply-demand imbalance. J Cardiopulmonary Rehabil 1989;9(10):379-80.
3. Van Camp SP, Peterson RA. Cardiovascular complications of outpatient cardiac rehabilitation programs. JAMA 1986;256:1160-63.
4. Greenland P, Chu J. Efficacy of cardiac rehabilitation services. Ann Intern Med 1988;650-63.
5. Gillilan R, Grose A, Sims D, et al. Beneficial effects of supervised exercise in patients with chronic stable coronary disease. USPHS Paper presented at the Professional Association Annual Scientific Meeting April 16, 1979.
6. Stewart K, Gillilan R, Asceveto A, Kelemen M. Holter monitoring of cardiac patients during volleyball and jog. J Cardiopulmonary Rehabil 1987;7(10):507.
7. Plantholt S, Gillilan R, Kennedy H, Kalaria D, Ruffier J. Usefulness of Holter recording in evaluating patient performance in a prescription exercise program. Clin Res 1981;29:231A.
8. Ewart CK, Stewart KJ, Gillilan RE, et al. Usefulness of self-efficacy in predicting overexertion during circuit weight training in men with coronary artery disease. Med Sci Sports Exerc 1986;18:531-40.
9. Kelemen MH, Stewart KJ, Gillilan RE et al. Circuit weight training in cardiac patients. J Am Coll Cardiol 1986;7:38-42.
10. Blair SN, Kohl III HW, et al. Physical fitness and all-cause mortality. JAMA 1989;262:2395-401.
11. O'Connor GT, Buring JE et al. An overview of randomized trials of rehabilitation with exercise after myocardial infarction. Circulation 1989;80:219-33.
12. Lipid Research Clinics Program. Lipid research clinics coronary primary prevention trial results. II. The relationship in reduction in incidence of coronary heart disease to cholesterol lowering. JAMA 1984;251:365-74.
13. Levy RI, Grensike JF, Epstein SE et al. The influence of changes in lipid values induced by cholestyramine and diet on progression of coronary artery disease; Results of the NHLBI type II coronary intervention study. Circulation 1984;69:325-37.



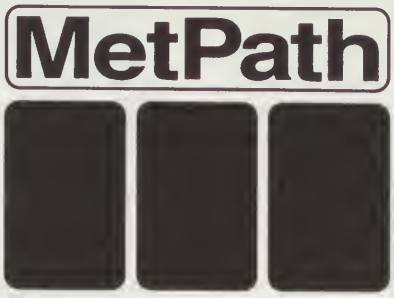
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White-Coat Hypertension: Detection and Evaluation

Jack Long DSW, Ronald Gillilan MD, Soo Gil Lee MD, Choong R. Kim MD, and Stephen Plantholt MD

From the Division of Cardiology, Department of Medicine, St. Agnes Hospital, Baltimore.

A comparison of subjects' blood pressures during office, ambulatory, and psychophysiological stress tests suggests further research is needed to better understand the importance of such testing on white-coat and fixed hypertensive patients.

A randomized crossover design was used to compare the effects of propranolol and placebo on blood pressures of 32 (7 "white-coat" and 25 fixed hypertensive) patients and 9 normotensive individuals in the office, by ambulatory monitoring, and during a psychophysiological stress test.

Monitoring Blood Pressure

Casual office blood pressures taken by a physician using a sphygmomanometer commonly are used to evaluate the hypertensive patient. Technological advances have given the clinician reliable and accurate 24-hour ambulatory recorders that afford a look at the patient's blood pressure in the everyday environment.[1] Automated monitors available for office use allow the clinician or researcher to observe minute-by-minute blood pressure changes in the clinic or laboratory situation while the patient is exposed to a variety of stressful activities.[2,3]

Increased reactivity to challenging life situations is thought to place the patient at higher risk for sustained hypertension.[4] Some research evidence suggests that 24-hour ambulatory recordings are more useful for determining whether a patient should or should not be treated for hypertension.[5-7] Other reports indicate that exaggerated blood pressure responses to situational stress induced in the laboratory is predictive of cardiovascular complications related to elevated blood pressure.[8,9] Both ambulatory recording and laboratory monitoring of blood pressure suggest that better diagnosis and treatment result from more comprehensive blood pressure assessment methods.

The term "white-coat" hypertension has been coined to identify patients who have daytime ambulatory blood pressures persistently in the normotensive range while their office blood pressures are in the hypertensive range.[7,10-12] Krakoff and others have suggested that diagnosis of hypertension may be improved with ambulatory recorders by showing the need for and defraying the cost of treatment.[6,11,13]

Automated blood pressure devices have changed the dynamics

between patient and physician. The new devices provide the opportunity for the patient to participate in stressful activities and for the clinician or researcher to engage the patient in verbal interaction. While blood pressure typically increases when an individual speaks, blood pressures of hypertensive patients increase more dramatically than do those of normotensive individuals.[3,14] Blood pressure differences between normotensive and hypertensives are particularly evident during speech about emotionally loaded subjects.[15,16] Perceived difference in status between subject and researcher also contributes to higher blood pressure when the subject speaks.[18]

Our study was designed to examine and compare the different blood pressure responses of white-coat hypertensives treated with propranolol or placebo. We were particularly interested in examining a psychophysiological stress protocol intended to profile the patient's response to stress and to add information diagnosis and for treatment decisions.

Methods

Thirty-two patients with mild hypertension (20 men and 12 women) were selected from a list of 53 referrals from practitioners in the St. Agnes catchment area.

All patients entering the study had been treated for hypertension at least one year, were between 21 and 70 years old, and were not taking antianxiety or antidepressant medications. Patients with atrial fibrillation were excluded from the study because of difficulty in obtaining blood pressure readings.

Twelve volunteers with no history of hypertension also were recruited for the study. Three of the recruits were found to have hypertensive blood pressures during office measurements and were rejected from the study. The nine remaining normotensive volunteers (7 men and 2 women, ages 37 to 68 years) participated in the psychophysiological stress test and wore a 24-hour ambulatory recorder. This group received no study medications.

The study was a randomized, double-blind crossover comparison of propranolol and placebo. Patients were weaned from their antihypertensive medications prior to participation in the study, and a medication-free week was used to verify that each patient was indeed hypertensive. A dose titration period was used to determine the appropriate doses of propranolol for each patient (Table 1). Dose titration continued two to six weeks until each patient's blood pressure reached normotensive levels.

Table1. Propranolol Dose Levels for Hypertensive Patients

	Dose Level (mg/day)				
	60	120	160	240	320
Male	3	4	6	2	5
Female	3	3	3	3	0
Total	6	7	9	5	5

During the randomized treatment phases of the study, all patients took placebo for two weeks and the appropriate dose of propranolol for another two weeks. During the last half of the second week of each drug sequence, blood pressure data were collected.

Office blood pressure A random zero mercury manometer was used to measure three casual office blood pressures in the patient's nondominant arm after the patient rested for at least ten minutes. Office blood pressure measurements generally were made in the morning by either a physician or technician.

Daytime ambulatory recording An ambulatory device using an electrocardiogram (ECG) signal with an electrical transducer for recording Korotkoff sounds was used to measure blood pressures. Recordings were made at half-hour intervals in the nondominant arm during the day. Average daytime pressures (8am to 10pm) were used for data analysis. The machinery alerted the researcher to spurious blood pressure readings by giving an error message in the case of technical difficulties.

In addition, two observers independently audited the 24-hour readings. If the two observers concurred on readings that appeared spurious, the readings were excluded from the data. A third observer reconciled the differences when the two observers disagreed as to the validity of the readings.

Criteria similar to that set forth by Krakoff et al. and Weber by were used to compare office blood pressures with daytime ambulatory pressures to identify white-coat hypertensives.[6,11] Patients (while on placebo) whose office blood pressures were in the hypertensive range (140/90 or more) and whose average daytime ambulatory pressures were less than 130/85 were considered to have white-coat hypertension.

Psychophysiological testing A 35-minute computerized psychophysiological test was administered to each patient. The test began with three to four resting blood pressure measurements taken at one-minute intervals using an automated oscillatory device. Blood pressures recorded with the automated device were comparable to sphygmomanometer readings. Interview stress included three speaking interactions with the researcher; speaking about health (3 minutes), speaking about work (3 minutes), and speaking about home (3 minutes). Mental stress consisted of reading aloud and explaining the reading (4 minutes), and oral mental arithmetic (3 minutes). Physiological stress included three physical activities: valsalva maneuver (1 minute), isometric hand grip (3 minutes), and cold pressor (3 minutes). A 1 to 2 minute rest period separated each stressor.

Data analysis was performed to identify white-coat hypertensives and to compare office, ambulatory, and psychophysiological blood pressures. Statistical methods included T-testing and analysis of variance.

Results

A total of 53 patients were interviewed for the study; 32 qualified. Twenty-eight percent (15 of 53), found to

be normotensive after being withdrawn from their antihypertensive medications, were excluded from the study. The mean office blood pressure for the 32 hypertensives, while on placebo was 146 (± 17.1)/97 (±6.8) mm Hg. For the 9 normotensive, mean office blood pressure was 114 (± 10.3)/71 (± 9.2)mm Hg.

Approximately 28 daytime ambulatory blood pressure measurements per patient were made during each of the two treatment phases. The machine was successful in recording 96 percent of the blood pressures it attempted to measure. Of those recorded, 91 percent were considered to be clinically accurate by the 3 auditors. There was a 97 percent concordance between the 2 independent observers. Ambulatory recordings identified 7 of the 32 (22 percent) hypertensive patients as having white-coat hypertension. The remaining 25 patients who had hypertension by office and ambulatory blood pressure measurements were deemed to have fixed hypertension for the purposes of this study.

Blood pressure was recorded 35 times at one-minute intervals during the psychophysiological stress test. The first three to four resting pressures taken before the actual verbal interaction began were used as baseline average.

Table 2 shows the average blood pressures for white-coat hypertensives, fixed hypertensives, and normotensive when taken in the office, at home by ambulatory recorder, and during the psychophysiological stress test.

For systolic blood pressure there was a statistically significant main effect of group ($F = 6.25, p < .02$) and no statistically significant effect of setting nor interaction between group and setting. Therefore, systolic blood pressure differentiated white-coat hypertensives from fixed hypertensives for each setting, but there was no marked within-treatment difference in systolic blood pressure for either group between settings.

For diastolic pressure, there was a statistically significant effect of both group ($F = 17.9, p < .0001$) and setting ($F = 9.09, p < .0005$). There was also a statistically significant interaction between group and setting ($F = 4.84\ p < .05$). Diastolic blood pressures of white-coat hypertensives were noticeably lower during the ambulatory measurement.

Systolic and diastolic blood pressures were significantly lower for each setting when fixed hypertensives were taking propranolol (minimum $t = 2.07$, $p < .05$ and maximum $t = 5.76$, $p < .0005$). For white-coat hypertensives there was a statistically significant effect of treatment for only diastolic pressure ($t = 4.15$, $p < .001$) in the office setting. Average blood pressures of white-coat hypertensives were in the normotensive range during ambulatory and baseline psychophysiological measurements regardless of the treatment modality.

Table 3 shows the comparative diastolic blood pressures for each psychophysiological stress relative to treatment.

There was no statistically significant effect of group on diastolic blood pressure. The diastolic blood pressures of white-coat and fixed hypertensives were similar within treatment for each of the psychophysiological stresses. For the fixed hypertensives there was a statistically significant effect of treatment for each of

Table 2. Comparative Blood Pressures for Different Settings and Drug by Group

Group	No. of Patients	Office		Ambulatory		Baseline Psychophysiological	
		Placebo	Drug	Placebo	Drug	Placebo	Drug
White-coat hypertensives	7	134 (6.6) 94 (4.9)	126 (13.9) 81 (6.5)	128 (4.3) 78 (4.5)	121 (15.7) 76 (7.7)	134 (12.7) 87 (10.1)	131 (13.1) 83 (7.6)
Fixed hypertensives	25	149 (17.8) 98 (6.9)	129 (16.1) 84 (10.0)	150 (9.4) 93 (5.4)	132 (14.3) 80 (8.4)	140 (13.8) 90 (7.5)	131 (17.9) 82 (10.1)
Normotensives	9	114 (10.3) 71 (9.2)		124 (10.3) 74 (9.5)		112 (4.5) 69 (3.3)	

Table 3. Comparative Diastolic Blood Pressure for Psychophysiologic Stresses and Drug by Group

	No. of Patients	Baseline		Interview		Mental		Physical	
		Placebo	Drug	Placebo	Drug	Placebo	Drug	Placebo	Drug
White-coat hyptensives	7	87 (10.1)	83 (7.6)	95 (7.4)	88 (4.9)	92 (9.5)	87 (10.0)	92 (5.9)	87 (6.3)
Fixed hypertensives	25	90 (7.5)	82 (10.1)	97 (6.6)	87 (9.0)	95 (8.1)	87 (11.4)	96 (9.2)	89 (10.5)

Mean Values with Standard Deviations

the four psychophysiological stresses minimum ($t = 2.44$, $p < .02$). For the white-coat hypertensives there was no statistically significant effect of treatment on any of the four psychophysiological stresses. Though the differences between treatments were not statistically significant, their trend was in the same direction as the fixed hypertensives.

We then looked at patients whose baseline Psychophysiologic Stress Test blood pressures were less than 90 mm of Hg when on placebo. (Table 4) Diastolic blood pressure of 90 mm Hg or greater was used as a cutoff, to identify the percentage of white-coat hypertensives, fixed hypertensives, and normotensives who had elevated pressures during the various psychophysiological stresses.

The percentage of diastolic blood pressures greater than 90 mm Hg was similar for white-coat and fixed hypertensives. For both groups propranolol treatment decreased the number of diastolic blood pressures in the hypertensive range. However, compared to the normotensive, both white-coat and fixed hypertensives had significantly more hypertensive diastolic blood pressures. This finding was mainly because the normotensive had lower baseline pressures.

Discussion

Of the 53 referrals from the St. Agnes catchment area, 28 percent were found to be normotensive after one to three weeks without antihypertensive medication, suggesting that periodic re-evaluation of antihypertensive medications may be appropriate for mild hypertensive patients.

We identified a group of hypertensive patients who fit the criteria for white-coat hypertension. While propranolol significantly lowered blood pressure for the white-coat hypertensive in the office, the drug had no statistically significant effect during ambulatory recording. This was in contrast to the fixed hypertensives whose blood pressures were significantly lower during treatment in each of the three settings during which blood pressure was recorded. The blood pressures of white-coat and fixed hypertensives behaved differently only in the ambulatory setting.

Initially it was assumed that the setting of the baseline psychophysiological measurement was similar to the office setting. Therefore, we predicted that the blood pressures in the office and during the baseline period of the psychophysiological test would be similar. Blood pressures of both white-coat hypertensives and fixed hypertensives were lower in the baseline psychophysiological measurements than in office measurements. The blood pressures of fixed hypertensives during baseline psychophysiological measurements were similar to those found during ambulatory measurements. This was not true for the white-coat hypertensives whose blood pressures were somewhat higher in both the office and during psychophysiological measurements. This finding supports the notion that white-coat hypertensives are more reactive to the medical setting.

We found white-coat and fixed hypertensives' diastolic blood pressures were consistently higher during psychophysiological stress than during ambulatory recording. While propranolol substantially decreased the percentage of hypertensive diastolic blood pressures for both white-coat and fixed hypertensives, they still had significantly more pressure measurements in the hypertensive range than did the normotensive group. The psychophysiological stress test apparently was measuring something different than the ambulatory recorder.

Diastolic blood pressures of white coat hypertensives were similar to diastolic blood pressures of fixed hypertensives during stress. It is likely the stress test focused the patient on personal issues during the interview, challenged him or her with performance issues during the mental stress, and physically taxed him/her during the physiological stress. There was no attempt to stress the patient during the interview; instead the researcher merely encouraged the patient to talk about health, home, and work.

While it has been documented that the act of speaking raises blood pressure, the hypertensive patient is more reactive to verbal interaction.[14-16] In this study, we found no difference between the white-coat and fixed hypertensive with regard to this reactivity. The increased focus during stress testing may have amplified or identified areas that were not encountered during ambulatory monitoring. Since situational stress response is thought to be predictive of cardiovascular complications,[9] these findings suggest the psychophysiological test could be a useful adjunct to office and ambulatory measurements.

Propranolol does not seem to suppress the blood pressure response for the hypertensive, rather it lowers the baseline and thus keeps the blood pressure below 90 mm Hg during stress. These findings bring into question the value of controlling the hypertensive at the marginal area of 85 to 90 mm Hg. It is unclear why there was no significant effect of the propranolol on the white-coat hypertensive during the ambulatory

Table 4. Percentage of Drug and Placebo Treated Hypertensives with Diastolic Blood Pressure Greater than 90 mm Hg during Psychophysiologic Stress Testing

	No. of Patients	Interview (%)	Mental Stress (%)	Physical (%)
Fixed hypertensives				
Drug	21	47	35	41
Placebo	15	66	57	65
White coats hypertensives				
Drug	6	39	54	39
Placebo	5	60	43	60
Normotensives				
Drug	9	1	9	10

recording while there was a significant effect during the office and psychophysiological stress test. However, propranolol ameliorated the stress particularly inherent to the office setting and during psychophysiological testing. Profiling a patient's reactivity to stress may be an important addition to ambulatory measurements that are used for treatment decisions.

It is noteworthy that the physical stresses were designed to put substantial stress on the patient. The verbal interaction portion was structured as an exploratory interview. The mental stress component was designed to create performance pressure. Patient complaints about the strenuousness of the hand grip and discomfort induced by the cold pressor test were not systematically collected, but at least 50 percent complained about one or the other. Despite the intensity of the physical stresses, interview and mental stress, generally elicited higher blood pressure responses. We took this finding as additional evidence of the potent effect that interview and mental stresses have on blood pressure.

The situation or process of psychophysiological stress testing was found to be different from the office and ambulatory settings for the measured parameter of blood pressure. We believe the findings will support further research into the importance of the effect of interview and mental stress on blood pressure, particularly as they relate to "white-coat" hypertension.

References

1. Graeittinger WF, Lipson JL, Cheung DG, Weber MA. Validation of portable noninvasive blood pressure monitoring devices: Comparisons with intra-arterial and sphygmomanometer measurements. Am Heart J 1988;116:1155-60.
2. Ramsey M. Noninvasive autonomic determination of mean arterial pressure. Med Biol Eng Comput 1979;17:11-18.
3. Lynch JJ, Thomas S, Long, JM, Katcher AH, Malinow KL, Chicadonz G. Human responses to verbal activity during blood pressure assessment. J Nerv Ment Dis 1980;168:526-34.
4. Manuck S, Krantz D. Psychophysiologic reactivity in coronary heart disease and essential hypertension. In Matthews KA, Weiss S, Detie T et al., eds. Handbook of Stress, Reactivity, and Cardiovascular Disease. New York: John Wiley and Sons, 1986.
5. Perloff D, Sokolow M, Cowan R. The prognostic value of ambulatory blood pressures. JAMA 1983;249:2792-98.
6. Krakoff, LR, Eison H, Phillips RH, Leiman SJ, Leo S. Effect of ambulatory blood pressure monitoring on the diagnosis and cost of treatment for mild hypertension. Am Heart J 1988;116:1152-54.
7. Pickering TG, Harshfield GA, Devereux, RB, Laragh JH. What is the role of ambulatory monitoring in the management of hypertensive patients? Hypertension 1985;7:171-77.
8. Morales-Ballejo HM, Eliot RS, Boone JL, Hughes JS. Psychophysiolic stress testing as a predictor of mean daily blood pressure. Am Heart J 1988;116:673-81.
9. Eliot RS. Stress and the Heart Mechanisms Measurements Management. Mt. Kisco, NY: Futura Publishing, Inc., 1988: 64-66.
10. White WB. Assessment of patients with office hypertension 24 hour non-invasive ambulatory blood pressure monitoring. Arch Intern Med 1986;146:2196-99.
11. Weber, MA. Evaluating the diagnosis and prognosis of hypertension by automated blood pressure monitoring: Outline of a symposium. Am Heart J 1988;116:1118-23.
12. Pickering TG. The influence of daily activity on ambulatory blood pressure. Am Heart J 1988;116:1141-45.
13. Lavie CJ, Schmieder RE, Messerli FH. Ambulatory blood pressure monitoring: practical considerations. Am Heart J 1988;116:1146-51.
14. Lynch JJ, Long JM, Thomas SA, Malinow KL, Katcher AH. The effects of talking on the blood pressure of hypertensive and normotensive individuals. Psychosom Med 1981;43:25-33.
15. Williams, RB, Kimball CP, Willard HN. The influence of interpersonal interaction on diastolic blood pressure. Psychosom Med 1972;34:194-98.
16. Long JM, Machiran NM, Bertell BE. Biofeedback: an adjunct to social work practice. Social Work 1986;31:476-77.



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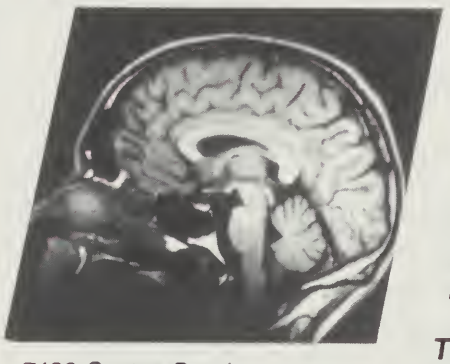
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References

1. *USP DI Update, September/October 1988, p 120.*
2. *Br J Clin Pharmacol 1985;20:710-713.*
3. *Data on file, Lilly Research Laboratories.*
4. *Scand J Gastroenterol 1987;22(suppl 136):61-70.*
5. *Am J Gastroenterol 1989;84:769-774.*

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Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, pennatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H_2-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H_2-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H_2-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

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Thrombolytic Therapy in MI: A Retrospective Study

Raul Balagtas MD, Juan Herrada MD, and Raymond Bahr MD

From the Paul Dudley White Coronary Care System, Department of Medicine, St. Agnes Hosiptal, Baltimore.

Of 123 patients with acute myocardial infarction, 82 percent did not receive thrombolytic therapy; 27 percent of those were because of time delays on patients' part in seeking medical attention. There is a clear need for patient education and public awareness of prodromal symptoms and early intervention.

It has been estimated that only a small percentage of cardiac failure patients with acute myocardial infarction (AMI) are candidates for thrombolytic therapy (estimates range from 20 percent to 30 percent of patients).

We undertook a retrospective analysis of the records of patients admitted to our coronary care who were diagnosed to have AMI during a three-month period. Included were patients with proved AMI with ST segment elevation with or without thrombolytic therapy.

Milestones

Recent years have borne witness to some remarkable milestones in coronary care. The elucidation of the pathophysiology of the coronary care syndromes by DeWood et al.[1] have provided a fresh perspective in the definitive management of coronary heart disease.

DeWood and his colleagues demonstrated the presence of coronary thrombosis (the so-called "culprit lesion") in at least 80 percent of patients who underwent coronary angiography within the first six hours of an acute "Q-wave" myocardial infarction. They also demonstrated that thrombi are present in 26 percent of patients with "non-Q wave" infarcts.[2] Sherman,[3] on the other hand, studied patients with unstable angina by coronary angioscopy and found that 70 percent of these patients had coronary thrombi.

A novel approach to the pathophysiologic management of the coronary syndromes was ushered in by the landmark study of Rentrop et al.[4,5] about ten years ago. Their study demonstrated the efficacy of intracoronary streptokinase in producing transluminal recanalization of coronary thrombi.

Since then, numerous clinical trials have been conducted to assess the efficacy and safety of thrombolytic therapy.[6-9] Foremost among them is the GISSI study (Gruppo Italiano per lo studio della streptochinasi nell'infarto miocardico)[7,10]that undertook the task of testing the efficacy and safety of intravenous (in contrast to

intracoronary) streptokinase under routine conditions in a large number of patients.

The GISSI study demonstrated a significant reduction (18 percent) in the 21-day mortality in streptokinase-treated patients as compared to the control group. Furthermore, the study concluded that the extent of beneficial effects appears to be a function of time from the onset of chest pain to the time of streptokinase infusion. They found relative risks (risk-to-benefit ratio) of 0:74 for the 0 to 3 hours subgroup; 0:80 risk for the 3 to 6 hours subgroup; 0:87 risk for the 6 to 9 hours subgroup; and 0:19 risk for the 9 to 12 hours subgroup.

These conclusions could be ascertained from the various studies:

- thrombolytic therapy is an effective mode of therapy for coronary syndromes.[5,6,9-11]
- the timing of administration of thrombolytic drugs is crucial for such drugs to have maximal efficacy with minimal side effects.

Thus, the so-called "golden period" of 30 minutes to 6 hours[5,10] from the onset of chest pain should be the main goal of thrombolytic therapy administration.

The purposes of our study were:

1. To determine the percentage of acute myocardial infarction (AMI) patients who present with ST-segment elevation and who eventually received thrombolytic therapy in the form of recombinant tissue plasminogen activator (rt-PA).
2. To determine the percentage of AMI patients who presented with ST-segment elevation but did not receive thrombolytic therapy because of time delay in the patients' consultation at the emergency room.
3. To determine the percentage of AMI patients who did not receive thrombolytic therapy because they did not present with ST-segment elevation.
4. To establish the necessity of identifying early AMI patients by other screening procedures so they may benefit from thrombolytic therapy.
5. To establish a Thrombolytic Index as a numerical means of comparing treatment data.

Methods

A retrospective analysis was performed over a three-month period (November 1988 to January 1989) by examining the hospital charts of patients admitted to the Coronary Care System of St. Agnes Hospital. These patients were admitted with a clinical suspicion of AMI.

Each chart was analyzed and the following data obtained: age, sex, creatine phosphokinase-myocardial band (CPK-MB), chief complaint on admission, admission electrocardiogram (ECG), reasons for/or contraindications to the administration of thrombolytic therapy (rt-PA). The number of patients diagnosed with definite AMI, the number of patients whose diagnosis of AMI was ruled out, the number of patients with AMI who received thrombolytic therapy (rt-PA), and the number of patients who did not receive thrombolytic therapy were tabulated.

The criteria for the diagnosis of AMI were:[5]

1. clinical history of chest pain of probable ischemic origin, unrelieved with sublingual nitroglycerin
2. ECG changes compatible with ischemia (that is, ST-segment elevation, ST-segment depression, new Q waves, or ST-T-wave changes)
3. creatine phosphokinase (CPK) elevation with CPK-MB fraction value greater than or equal to 10 percent of the total CPK value

The criteria for administration of thrombolytic therapy were[5] ischemic chest pain occurring for 20 minutes to 6 hours unrelieved by sublingual nitroglycerin; ST segment elevation $\geq$ 0.1 mV in two contiguous leads; and low risk for bleeding.

The contraindications for thrombolytic therapy were[5,12] acute internal hemorrhage, bleeding diathesis, history of cerebrovascular accident, major surgery or trauma within ten days, recent blood vessel puncture in a noncompressible site, traumatic cardiopulmonary resuscitation (CPR), uncontrolled hypertension with blood pressure > 180/110 mmHg, intracranial or intraspinal disease, and clouded sensorium.

Recombinant tissue plasminogen activator (rt-PA) was supplied in 50 mg vials. Two vials were reconstituted in 50 cc sterile water each and then diluted up to 1:5 in normal saline. A separate IV line as used for rt-PA. A 10 mg IV bolus was given over 1 to 2 minutes by a resident physician and followed by a 50 mg IV drip over the next 60 minutes. This was followed by a 20 mg/hour drip over two hours.

Results

A total of 123 patients were evaluated. Of these, 17 (14 percent) were less than 40 years old; 64 (52 percent) were in the 41 to 65 year-old range; and 42 patients (34 percent) were in the 66 to 85 age range. Of these patients, 53 (43 percent) were males and 70 (57 percent) were females.

With regard to the chief complaint, 66 (54 percent) of the patients presented with chest pain; 37 (30 percent) with shortness of breath; 10 (8 percent) with dizziness; and 5 (4 percent) with diaphoresis.

ECG findings of ST segment elevation of greater than 1 mm were present in 22 of 55 patients with documented AMI (40 percent). Other ECG findings of ST segment depression and nonspecific ST-T wave changes without any ST-segment elevation was present in 30 of 55 documented AMIs (55 percent). Findings consistent with left bundle branch block were found in 3 of 55 patients (5 percent).

Of the 123 patients, 55 had documented AMI (45 percent), and 68 patients (55 percent) had the diagnosis of AMI eventually ruled out.

Of the 55 patients with documented AMI, 10 (18 percent) qualified to receive thrombolytic therapy while 45 (55 percent) patients did not.

Of these 45 patients who did not receive rt-PA, 12

(27 percent) had ST segment elevation but did not receive thrombolytic therapy because of time delay (that is patient consultation occurred beyond 6 hours from the onset of chest pain); 30 out of 45 patients (67 percent) had no ST-segment elevation and therefore did not qualify to receive thrombolytic therapy; and 3 patients (7 percent) presented with left bundle branch block and did not qualify to receive thrombolytic therapy.

Discussion

We found in our study that 82 percent of the patients with proved AMI did not receive thrombolytic therapy.

Although 27 percent of the patients with AMI came in with ST segment elevation, they did not receive thrombolytic therapy because of time delay. These patients were evaluated and diagnosed as AMI beyond the "golden period" of the acknowledged criteria for the safe administration of thrombolytic therapy.

Several implications could be drawn from this observation:

The need for patient education and public awareness Time delays can occur due to the patient: his or her denial of symptoms or unawareness of the prodromal symptoms of myocardial infarction and the importance of early intervention in its management.[13] Patient education and public awareness of prodromal symptoms and of the importance of early intervention are important. Dissemination of information through the media or through community outreach programs could be of immense value. At Saint Agnes Hospital, a community program, "Early Cardiac Care Giver," promotes this concept of public awareness of coronary heart disease and its serious implications.

The early administration of thrombolytic therapy It is still controversial whether field administration of thrombolytic therapy through the Emergency Medical System (EMS)[14-18]with close hospital support would be a safe and effective way of providing early cardiac intervention. This could be of immense importance in the rural setting. Several studies have addressed this issue. One was a University of Chicago study[14]in which a cellular phone system was used to transmit ECGs from the ambulance to the hospital-based emergency room physician who made decisions based on the ECG and the patient history. These "mock decisions" were eventually compared with decisions made by other hospital personnel upon the patient's arrival in the hospital emergency room. Both decisions correlated well. This approach remains an attractive and viable solution.

The need for an early and accurate diagnosis of AMI ECG as a diagnostic tool has a low sensitivity and low specificity.[19]Serum CPK-MB determinations take too long to be a basis of decision making in diagnosing AMI patients with potential for the use of thrombolytic therapy.[20] Advances in technology could play a vital role in this regard. A faster method of detecting CPK-MB levels using fluorescent probe technology is being studied (akin to the technology employed in continuous 24-hour arterial blood gas monitoring). Other technological breakthroughs such as myoglobin level determination and two-dimensional radionuclide imaging using monoclonal antibody technology are on the horizon.

Expansion of the criteria for thrombolytic therapy Expanding the criteria for the administration of thrombolytic therapy to include unstable angina as one of the indications for its use is controversial. One has to weigh the risks and benefits including cost-effectiveness and safety. Studies such as the European International Study[1] noted an appreciable decline in mortality (26 percent) in patients who received thrombolytic therapy as compared to those who did not. The inclusion criteria in this study was based solely on the clinical history of prolonged chest pain of probable ischemic origin. Thus, this study indirectly points to the benefit that some patients with coronary artery disease might obtain from this modality, whether it be AMI or unstable angina.

It was proved that coronary thrombosis exists as the "culprit lesion" even in unstable angina, thus showing the effectiveness of heparin therapy in this setting.[3] It is therefore logical that thrombolytic therapy should benefit these patients as well. Further studies need to fully address this controversy.[21,22]

Thrombolytic Index

At this point, we introduce the concept of the "Thrombolytic Index" (TI). This corresponds to the percentage of patients who received thrombolytic therapy factored from the total number of patients admitted with a diagnosis of AMI. The equation is

$$\text{TI:} \frac{\text{patients with AMI receiving thrombolytic therapy}}{\text{total number of patients admitted with a proved diagnosis of AMI}}$$

In this study, the TI is 18 percent (10 patients who received thrombolytic therapy out of 55 patients admitted and diagnosed as having AMI during the same period of observation).

We believe this objective measure would facilitate accurate comparison of thrombolytic therapy statistics among various hospitals and would be a good gauge of how effectively thrombolytic therapy is administered in AMI. At present, based on clinical studies done so far[5,7] such TI value (or its equivalent in such studies) would fall in the 20 percent to 30 percent range. We would aim for a 100 percent value as this would mean we have extended the benefits of thrombolytic therapy to all patients with AMI. Further studies must be done to establish reasonable goals and expectations that hospitals can achieve.

Perhaps the main value of a thrombolytic index would lie in its role in monitoring the progress of the hospital's public awareness and community outreach

programs in disseminating the value of early recognition of the prodrome of AMI. A yearly comparison of TI could be an objective measure of how effectively those programs (and other proposed strategies) could improve the number of patients that might benefit from thrombolytic therapy.

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References

1. DeWood MA. Prevalence of total coronary occlusion during the early hours of transmural myocardial infarction. N Engl J Med 1980;303:897-902.
2. DeWood MA. Coronary arteriographic findings soon after a non-Q wave myocardial infarction. N Engl J Med 1986;315:417-23.
3. Sherman CT. Coronary angioscopy in patients with unstable angina pectoris. N Engl J Med 1986;315:913-19.
4. Rentop KT, Blanke H, Karsch KR, Kreuzer H. Initial experience with transluminal recanalization of the recently occluded infarct-related coronary artery in acute myocardial infarction: comparison with conventionally treated patients. Clin Cardial 1979;2:92-105.
5. Bates E, Topol E. Thrombolytic therapy for acute myocardial infarction. Chest 1989;95(5)suppl:257S-64S.
6. Kennedy J. The Western Washington intravenous streptokinase in acute myocardial infarction randomized trial. Circulation 1988;77(2):345-52.
7. Brooks-Brunn J. Thrombolytic intervention and its effects on mortality in acute myocardial infarction. Heart Lung 1989; (6) pt. 2:756-61.
8. Califf R. Experience with the use of rt-PA in the treatment of acute myocardial infarction. Ann Emerg Med 1988;17:1176-89.
9. ICIN study: Improved survival after early thrombolysis in acute myocardial infarction. Lancet 1985;2:578-82.
10. GISSI Study (Gruppo Italiano per lo studio della streptochinasi nell'infarto miocardico). Effectiveness of intravenous thrombolytic treatment in acute myocardial infarction. Lancet 1986:397-401.
11. The ASSET study: Thrombolysis with tissue plasminogen activator in suspected myocardial infarction. Chest 1989;95(5) suppl: 270S-75S.
12. Heras M. Emergency thrombolysis in acute myocardial infarction. Ann Emerg Med 1988;17:1168-75.
13. Sharkey S et al. An analysis of time delays preceding thrombolysis for acute myocardial infarction. JAMA 1989;262 (22): 3171-74.
14. Burney R. Identification and transport of patients with acute myocardial infarction for thrombolytic therapy. Ann Emerg Med 1988;17:1158-65.
15. Verheugt F. Emergency room infusion of intravenous streptokinase in acute myocardial infarction: Feasibility, safety and hemodynamic consequences. Am Heart J 1989;117 (5): 1018-29.
16. Lee T. Candidates for thrombolysis among emergency room patients with acute chest pain. Ann Intern Med 1989;110 (12):957-62.
17. Mark D et al. Administration of thrombolytic therapy in the community hospital: Established principles and unresolved issues. Am Coll Cardiol 1988;12 (6): 32A-43A.
18. Grim P. Evaluation of patients for the need of thrombolytic therapy in the prehospital setting. Ann Emerg Med 1989;18 (5): 483-88.
19. Boden W et al. ST segment shifts are poor predictors of subsequent Q wave evolution in acute myocardial infarction. Circulation 1989;79 (3):537-48.
20. DuFour R et al. Rapid serial enzyme measurement in evaluation of patients with suspected myocardial infarction. Am J Cardiol 1989;63:652-55.
21. Loscalzo J. Thrombolysis in the management of acute myocardial infarction and unstable angina pectoris. Drugs 1989; 37:191-204.
22. Ambrose J. Thrombolysis in unstable angina: Will the beneficial effects of thrombolytic therapy in myocardial infarction apply to patients with unstable angina? J Am Coll Cardiol 1988;13 (7): 1666-71.

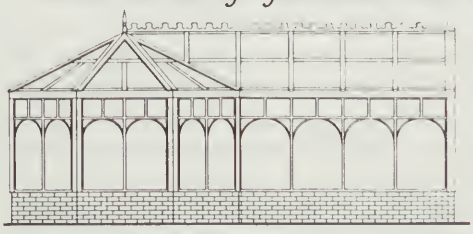
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Relevance of Routine Operative Cholangiograms and Modifications in Criteria for Selective Use

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A community hospital's experience in reviewing 367 patients undergoing cholecystectomy over one year showed that routine use of operative cholangiograms not only is unwarranted but also may be harmful.

Since its introduction in 1931 by Mirizzi, the operative cholangiogram (OC) justifiably has found a place in the repertoire of the general surgeon performing cholecystectomy. Use of the OC has saved unnecessary choledochostomies in approximately 50 to 60 percent of patients who would have undergone this procedure had the decision been based on clinical criteria alone.[1-4] However, in the past 10 to 15 years, other studies have been published denouncing the routine use of operative cholangiograms.[5-8] We report a retrospective review of our experience with routine OCs in a community hospital setting.

Methods

Charts of 367 patients who underwent cholecystectomy at St. Agnes Hospital from July 1985 through June 1986 were reviewed. Relevant information was charted on sheets that included patients' preoperative profiles with emphasis on preoperative criteria as accepted for selective use of operative cholangiogram (Table 1). We did not include intraoperative assessment of the common bile duct (CBD) in these criteria as very few operative notes indicated Kocherization of the duodenum prior to assessment of the CBD. Of the 367 patients, 74 were excluded from the study because either the cholecystectomy was incidental or no OC was performed. None of these patients have returned with complications.

Of the remaining 293 patients, 226 had negative OC, 2 had CBD exploration on basis of ERCP, and 65 had positive OC (dilatation and/or stone in CBD). Criteria of calling an OC positive were (1) radiolucent shadow in CBD or hepatic duct(s); (2) dilation alone of CBD without flow of contrast in duodenum. All patients with positive OC had two or more films taken, often with tilting or turning the table to eliminate artifacts or air bubbles.

Results

Of the 293 patients included in the study, 65 had positive OC by the above criteria, including 6 who had ductal dilation alone

(criterion 2). These 6 had had pancreatitis within the past two months and underwent exploration of CBD (CBDE) with bypass or sphincteroplasty. The remaining 59 had radiolucent shadows in biliary tree considered indicative of choledocholithiasis. Fifteen (25 percent) of them had OCs that were read as positive by the radiologist but considered negative by the surgeon; only one (1/15) of these underwent CBDE (which was negative), the remaining 14 did not undergo CBDE. None of these 15 have come back with complications.

False-positive results Of a total of 59 OCs suggesting choledocholithiasis, 45 underwent CBDE. Twenty-one of 45 (47 percent) had a positive exploration; the remaining 24 (53 percent) had a negative exploration. The number of false-positive interpretations by the radiologist was 38 out of 59 (64 percent). Of these 38, 23 also had been interpreted as positive by the surgeon. Thus, the surgeons disagreed with the interpretation by the radiologist in 14 of the 38 cases. Of the 38 false-positive OC interpretations, 21 had one or more of the criteria used for selecting the use of OC. Had the criterion of multiple stones been eliminated, there would have been only 15 false-positive interpretations resulting in the use of OC, and the negative exploration rate by OC would have been reduced to 33 percent (15/45).

True positive results Twenty-one (21) patients had a positive OC and a positive CBDE; of these, 4 were unsuspected using preoperative criteria. Of the remaining 17 patients with positive criteria for OC and CBDE, none had multiple stones as the only criterion.

False-negative results Two hundred twenty-six (226) out of 293 patients had a negative OC; of these 2 (0.8 percent) came back within 6 months with obstructive jaundice and had to undergo endoscopic sphincterotomy resulting in retrieval of a retained stone. Both these patients during their initial operation had indications for selective OC.

Unnecessary cholangiograms One hundred sixteen (116) patients out of 293 patients undergoing cholangiograms (40 percent) had one or more criteria (including multiple stones for performing selective OC); the remaining 60 percent did not.

Unsuspected stones Only four (4) of 117 patients (2.2 percent) were discovered to have cholelithiasis when cholangiograms were performed in patients who did not meet the criteria for OC.

Pancreatitis An analysis of different criteria in the three groups (Table 2) shows relative similarity between the false-positive OC and negative OC groups. An exception was that 31 percent of the false-positive OC patients had pancreatitis (or a recent history of it) versus only 4 percent in the negative OC group. The same patients also had mild dilatation of the CBD and an increase in alkaline phosphatase.

Table 1. Indications for Selective Operative Cholangiograms

1. Hyperbilirubinemia (direct bilirubin > 0.5, nl 25)
2. Increased alkaline phosphatase > 130 (nl 126)
3. Pancreatitis or hyperamylasemia
4. Dilated CBD on sonogram > 1.0 cm (nl 0.8 cm)
5. Multiple stones by sonography

Discussion

Although advantages of the OC over clinical criteria alone for evaluating the biliary tree are unquestionable, the low yield of unsuspected stones (2.2 percent in this series) does not justify routine use of OC in all cholecystectomies, especially as only 10 percent of the unsuspected stones are likely to become a clinical problem. The yield of unsuspected stones in different series varies from 0 to 3.9 percent (Table 3).[1-8]

The most disturbing fact in this study was the very high number of false-positive OC (64 percent by the radiologist and a somewhat lower number (30 percent) by the surgeon. This resulted in a negative exploration of the common bile duct in 53 percent of patients. The range of false-positive OC as reported in other series varies from 0 to 41 percent, with one study [7] reporting 46 percent false positive over one year, but 38 percent for the entire series. We could not find a report in other studies regarding a conflict between the radiologist and the surgeon, but from our experience it would appear that the surgeon is more likely to be right

Table 2. Analysis of Criteria

	CBD Stone (percent)	False-Positive OC (percent)	Negative OC (percent)
Increased direct bilirubin	82	37	30
Increased alk. phosphatase	52	26	9
Dilated CBD	52	29	6
Increased bilirubin, alk. phosphatase	41	7	7
Increased bilirubin, alk. phosphatase and dilated CBD	35	3	3
Pancreatitis	24	31	4

Table 3. Yield of Unsuspected Stones in Different Series (percents)

	False-Positive OC	Unsuspected Stone
Salzstein '73[1]	41	2.3
Wayne '76[2]	18	3.9
Skillings '79[3]	38 (46 % in one year)	0.8
Stark '80[4]	33	0.9
Deitz '82[5]	0	0
Levine '83[6]	16	2.1
Mills '85[7]	8	0.5
Gregg '88[8]	37	?
This series	53	2.2

1. Arch Surg 1973; 107: 289-91.
2. Am J Surg 1976; 131: 324-27.
3. Am J Surg 1979; 137: 26-31.
4. Surg Gynecol Obstet 1980; 151: 657-58.
5. Am Surg 1982; 48: 297-301.
6. Ann Surg1983; 198: 692-97.
7. Surg Gynecol Obstet 1985; 161: 343-45.
8. Am J Surg 1988; 155: 540-45.

should such a conflict arise. This probably comes from the clinical involvement with the patient and the advantage of the intraoperative visualization and palpation of the biliary tree. The surgeon, therefore, should not feel pressured to explore the common duct based solely on a positive reading of an OC by the radiologist.

Since none of the patients with true positive OCs only had multiple stones as the criterion for selective OC, we think that multiple stones should not be included in the criteria. Indeed, excluding multiple stones from the criteria and then using OC selectively, the negative exploration rate would have been 33 percent instead of 58 percent without altering the number of unsuspected stones. Another study[7] quoted a false-positive rate of 85 percent when OC was done when the finding of multiple stones was the only criterion cited.

Thirty-one percent of the patients in the false-positive group had pancreatitis or had a recent history of it with increase in alkaline phosphatase and mild dilatation of the CBD versus only 4 percent of the negative OC group. It appears that alterations or distortions of anatomy during or soon after an attack of pancreatitis predisposes to a false-positive impression on a cholangiogram. Therefore, when interpreting the OC in these patients, the surgeon should be aware of the increased incidence of false positivity.

Conclusion

Routine use of OC is not only unwarranted but also may be harmful. The low yield of unsuspected stones does not justify its routine use. To decrease the number of false-positive cholangiograms, it appears that (1) it should be used selectively only; (2) multiple stones should not be included in the criteria for selective use of OC; (3) the surgeon should be aware of the high incidence of false-positive OC in patients with a history of pancreatitis; and (4) clinical judgment should be used at surgery to determine the use of OC.

References

1. Saltzstein EG, Evani SV, Mann RW. Routine cholangiography Arch Surg 1973;107:289-91.
2. Levine SB, Lerner HJ, Leifer ED, Lindheim, SR Intraoperative cholangiography. A review of indications and analysis of age sex group. Ann Surg 1983;198:692-97.
3. Stark ME, Loughry CW. Routine operative cholangiography with cholecystectomy. Surg Gynecol Obstet 1980;151:657-58.
4. Wayne R, Cigielski M, Bleicher J, Saporta J. Operative cholangiography in uncomplicated biliary tract surgery. Am J Surg 1976;131:324-27.
5. Deitch EA, Voci VE. Operative cholangiography. The case for selective instead of routine operative cholangiography. Am Surg 1982;48:297-391.
6. Mills JL, Beck DE, Harford EJ. Routine operative cholangiography. Surg Gynecol Obstet 1985;161:343-45.
7. Skillings JC, Williams JS, Hinshaw JR. Cost-effectiveness of operative cholangiography. Am J Surg 1979;137:26-31.
8. Gregg RO. The case for selective cholangiography. Am J Surg 1988;155:540-45.

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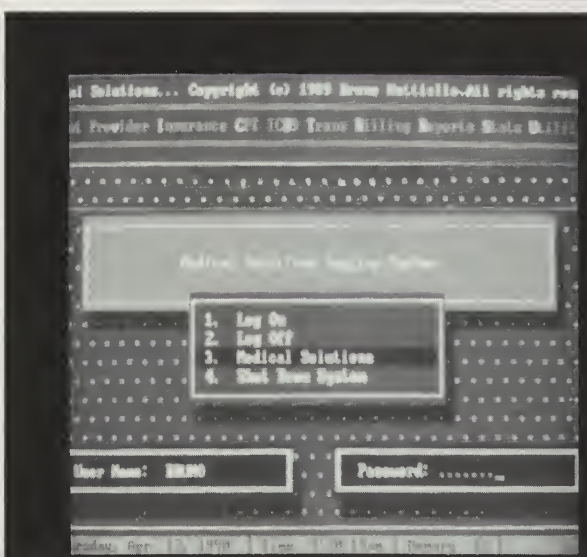
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Use of Fetal-Weight Formulae in a Community Hospital

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Twelve formulae for estimating fetal weight were prospectively studied in the hope that one formula could be used on a patient population regardless of such complications as oligohydramnios, multiple pregnancy, or abnormal presentation.

Fetal weight may be determined by using a number of published formulae incorporating a combination of biparietal diameter (BPD), abdominal circumference (AC), femur length (FL), and head circumference (HC). Difficulty in estimating fetal weight is compounded when the interval between sonography and delivery varies by days to weeks.

At present the incorporation of various fetal measurements into formulae have been extremely useful in providing accurate information regarding fetal weight. After several years' experience using the formula of Shepard et al.[1] for estimating fetal weight, we were reluctant to rely on the results when dealing with difficult clinical decisions concerning viability or method of delivery. Our impression was that we were underestimating the fetal weight by about 15 percent for our patient population, even when delivery was within a short time after ultrasound examination. Therefore, a prospective study using Shepard's formula and Shepard's formula plus 15 percent was initiated. Other formulae published in the literature as listed in the Table were included in the study.[1-8]

In comparing these 12 twelve formulae it was hoped that one formula could be used on our patient population regardless of such complications as oligohydramnios, multiple pregnancy, or abnormal presentation. In addition, we aimed to determine whether instituting a factor to compensate for the time between delivery and ultrasonic evaluation would improve the predictive value of these formulae.

We also endeavored to evaluate whether the use of head circumference (HC) and femur length (FL) included in the formulae, in addition to the use of biparietal diameter (BPD) and abdominal circumference (AC), improved the accuracy as described by Hadlock et al.[8,9]

Material and Methods

The study consisted of 226 patients examined by one of the authors (ME) by means of a linear array real-time scan (ADR-4000 SL, 3.5 MHz transducer). Measurements were made with

electronic calipers. The population consisted of all racial groups and included both private and service patients. The population was unselected and included preterm, term, and postterm fetuses, as well as fetuses that were growth retarded or macrosomic. Since Deter et al.[10] found no significant difference in fetal-weight growth curves, no separation by fetal sex was attempted. Gestational ages varied between 20 and 44 weeks. Gestational age at delivery was determined by using the expected date of confinement (EDC) by last menstrual period if it was normal and if it was consistent with Dubowitz scoring. If the last menstrual period was unknown or thought to be in error, the gestational age was determined by averaging the EDC determined by the published formula of the BPD, HC, AC, and FL, and confirmed by Dubowitz scoring. The study was divided into groups of four weeks by gestational age since gestational age is either known or estimated by the clinician and thus was thought to be of most value for decision making in the delivery suite.

The biparietal diameter was obtained at the level of the thalmi and the septum pellucidum. Measurements were made from the outer edge of the anterior skull table to the outer edge of the posterior skull table, and a perpendicular measurement to that line from outer edge to outer edge. The two measurements were added, divided by two and multiplied by pi, except in formula 4.

The abdominal circumference was measured by determining the fetal lie using the fetal aorta or spine. A symmetrical circular abdominal echo was sought as best possible at a right angle to these structures at the level of the umbilical vein. If the umbilical vein could not be visualized, the level of disappearance of fetal cardiac echos and appearance of the fetal stomach was used. The anterior and posterior diameter of the abdomen was then measured by the electronic calipers from outer skin surface to outer skin surface through the spine posteriorly. The transverse abdominal diameter was measured at right angles to the above. This circumference was calculated in the same manner as the head circumference.

The femur length was obtained by measurement of the diaphysis from the proximal to the distal metaphysis, as described by O'Brien and Queenan.[11]

The results of the study were analyzed by comparing the 12 formulae as follows:

1. The error obtained in either underestimating or overestimating the fetal weight, that is, the actual weight (AW) minus the predicted weight (PW).
2. The absolute error, that is, the gross error whether due to overestimation or underestimation.
3. The error percentage, that is, the error of percent equals [(AW-PW)/AW] x 100.
4. The grams per kilogram error [{AW-PW}/{AW/1000}].
5. Attempts were made to further refine the comparison of the 12 formulae by adding 10 grams per kilogram and 25 grams per kilogram to the predicted weight for each day that the delivery occurred after ultrasound examination. This was based on Hendricks' study[12] reviewing a fetal growth pattern of 20 to 30 grams per kilogram per day and Williams et al.[13] who reported the median growth rate reaches a maximum of 250 grams per

Table. Formulae Used to Predict Fetal Weight

1. Log_{10} Wgt. = -1.7492 + 0.166 X BPD + 0.046 X AC -2.646 X (AC X BPD)/1000.[1]
2. Wgt. = Formula (1) + Formula (1) X 0.15.
3. Wgt. = Formula (1) + Formula (1) X 0.124.[2]
4. Log_{10} Wgt. = -1.7492 + 0.166 X BPD + 0.046 X Pi $\frac{X / \frac{(FAD_1)^2 + (FAD_2)^2}{2}}{X / \frac{(FAD_1)2 + (FAD_2)2}{2}}$ -0.002646 X Pi X BPD.[3]
5. Log_{10} Wgt. = -1.599 + 0.144 X BPD + 0.032 X AC - 0.111 X ($AC \times BPD^2$) /1000.[4]
6. Wgt. = 0.0816 X AC3.[5]
7. Wgt. = (BPD X AC X 9.337) - 299.076.[6]
8. Wgt. = 10.1 X (AC X BPD) - 481.[7]
9. Log_{10} Wgt. = 1.304 + 0.05281 X AC + 0.1938 X FL -0.004 X AC X FL.[8]
10. Log_{10} Wgt. = 1.335 - 0.0034 X AC X FL + 0.0316 X BPD +0.0457 X AC + 0.1623 X FL.[8]
11. Log_{10} Wgt. = 1.326 - 0.00326 X AC X FL + 0.0107 X HC +0.0438 X AC + 0.158 X FL.[8]
12. Log_{10} Wgt. = 1.3596 - 0.00386 X AC X FL + 0.0064 X HC +0.00061 X AC X BPD + 0.0424 X AC + 0.174 X FL.[8]

1. Shepard MJ, Richards VA, Berkowitz RL, Warsof SL, Hobbins JC. An evaluation of two equations for predicting fetal weight by ultrasound. Am J Obstet Gynecol 1982;142:47
2. Divon MY, Chamberlain MB, Sipos L, Platt LD. Underestimation of fetal weight in premature rupture of membranes. J Ultrasound Med 1984;3:529.
3. Ott WJ. Clinical application of fetal weight determination by real-time ultrasound measurements. Obstet Gynecol 1981;57:758.
4. Warsof SL, Gohari P, Berkowitz RL, Hobbins JC. The estimation of fetal weight by computer-assisted analysis. Am J Obstet Gynecol 1977;128:881.
5. Higgenbottom J, Slater J, Porter G, Whitfield CR. Estimation of fetal weight from ultrasonic measurement of trunk circumference. Br J Obstet Gynaecol 1975;82:698.
6. Thurnau GR, Tamura RK, Sabbagha R et al. A simple estimated fetal weight equation based on real-time ultrasound measurements of fetuses less than thirty-four weeks' gestation. Am J Obstet Gynecol 1983;145:557.
7. Weinberger E, Cyr DR, Hirsch JH, Richardson T, Hanson JA, Mack LA. Estimation of fetal weights less than 2000g: An accurate and simple method. AJR 1984;141:973.
8. Hadlock FP, Harrist RB, Sharman RS, Deter RL, Park SK. Estimation of fetal weight with the use of head, body, and femur measurements - A prospective study. Am J Obstet Gynecol 1985;151:333.

week at 33 weeks and then declines to approximately 75 grams per week at 40 weeks.

6. An attempt also was made to remove the cases with method errors (those cases in which two-thirds of the formulae produced an error of greater than 10 percent) to further compare the accuracy of the formulae. In addition, this subgroup of cases was adjusted by 10 and 25 grams per kilogram per day to further evaluate whether this correction improved predictive results.
7. Those cases of oligohydramnios or premature rupture of the membranes (PROM), abnormal presentations, and twins were then considered separately to evaluate the comparative value of the formulae in these special cases.

Results

The first group consisted of 30 patients who were 36 weeks' gestation or more and delivered within 3 days of their real-time scan. This resulted in fairly accurate predictions by many of the formulae. Formula 10 was within 5 percent on average, with formulae 9 and 12 close behind, as well as formulae 1, 4, and 11. Elimination of those cases with excessive method error, as well as correction for 10 to 25 grams per kilogram per day after real-time scan made little difference in the accuracy of these formulae.

Group two deals with those patients 36 weeks' gestation or greater who delivered 4 to 7 days after the real-time scan when accuracy deteriorates to a certain extent. There is a 7 percent difference in formula 3 closely followed by formulae 1, 2, 4, 9, 10, 11, and 12. Eliminating method errors reduced the caseload from 26 to 20. The addition of 10 grams per kilogram per day from the time of ultrasound to the time of delivery only reduced the cases from 26 to 24. It therefore appears that the addition of 10 grams per kilogram per day is of some benefit in cases that deliver 3 to 7 days after ultrasound. When dealing with patients who deliver 8 or more days after ultrasound, as is studied in the third group, it can be seen that accuracy deteriorates even further.

In summarizing cases above 36 weeks gestation, it appears that formulae 4, 10, 11, and 12 are probably the most accurate, with formulae 1, 9, and 6 very close behind. It also appears that the addition of 10 grams per kilogram per day from the day of scan to the date of delivery is somewhat helpful in predicting birthweights.

Patients 32 to 36 weeks' gestation are dealt with next in three groups. Group four concerns itself with patients who delivered within 3 days after the real-time scan. All formulae resulted in rather poor accuracy with an average error of about 9 percent, improving only to 7 percent by removing the method errors. The addition of 10 and 25 grams per kilogram per day did not improve the accuracy of the interpretation nor did it salvage the cases lost due to method error. No particular formula was outstanding in this group of patients.

In those patients who were 32 to 36 weeks' gestation and delivered between 4 and 7 days after real-time scan (group five) there was again no great accuracy in any of the formulae. Formulae 4, 9, and 10 did better than the rest, with formulae 1, 11, and 12 close behind. The addition of 10 grams per kilogram per day improved most of the formulae slightly, as did the addition of 25 grams per kilogram per day. The elimination of method errors, plus the addition of 10 and 25 grams per day, improved the performance in formulae 1, 4, 5, 9, 10, 11, and 12, but this is based on only 10 cases.

The sixth group deals with the patients 32 to 36 weeks' gestation who delivered 8 or more days after their real-time scan, and the only formulae that have less than 10 percent error are 2 and 3. Correction of method errors reduces the number of cases to less than half, but the addition of 10 grams per kilogram per day salvages 6 of the 7. Once again, it appears that the elimination of method errors enhances the accuracy of formulae 1, 4, 9, 10, 11, and 12, as does the addition of 10 grams per kilogram per day.

Groups seven and eight pertain to patients who delivered between 28 and 32 weeks. There are not enough cases in this group of patients who delivered 8 or more days after real-time scan to list. In fact, there were only 7 patients who delivered between 4 and 7 days after real-time scan, which are considered in group eight.

Group seven considers those patients who are 28 to 32 weeks and delivered within 3 days after real-time scan. Again the raw results seem to be less accurate than with the more mature fetuses. There were no formulae under 5 percent error. Only formulae 9, 10, 11, and 12 were under 10 percent. Correction by 10 grams per kilogram per day reveals practically no difference, and correction by 25 grams per kilogram per day made the situation worse. Elimination of cases with excessive method error reduced the caseload from 30 to 18, but brought formulae 10, 11, and 12 to less than 5 percent and all formulae except 5 and 6 under 10 percent. The addition of 10 grams per kilogram per day to these corrected cases did not improve the accuracy, and 25 grams per kilogram per day made it considerably worse.

Group eight, those patients 28 to 32 weeks, consists of only 7 cases. The correction of 20 grams per kilogram per day brought formulae 1, 4, and 8 under 10 percent, along with formula 7, whereas 25 grams per kilogram per day brought all the formulae above 10 percent error. Removing cases with method errors reduced the caseload by two. In dealing with the 5 cases in which the method of error was removed, the accuracy was improved markedly in formulae 12 and 9, as well as 10 and 11. The addition of 10 grams per kilogram per day helped most of the formulae, but the addition of 25 grams per kilogram per day caused deterioration of most of the formulae.

Those patients 24 to 28 weeks who delivered within 3 days after real-time scan are depicted in group nine. There were not enough cases delivering 4 days or more

after the scans for evaluation. Once again, formulae 9, 10, 11, and 12 functioned best, although their accuracy was just below a 10 percent error on average. After correction for method errors, the average error dropped to 5 percent or less. Eliminating the cases of method error in this group improved the accuracy of all the formulae. The addition of 10 grams per kilogram per day made little difference, and again, 25 grams per kilogram per day made the results worse.

Patients who are 20 to 24 weeks gestation and who have delivered within 3 days after real-time scan are in group ten. Again, there were not enough cases who delivered four or more days after real-time scan to include in this study. This segment of patients conforms to the results shown in the more mature cases. In this group of patients formulae 1, 4, 5, 9, 10, 11, and 12 seem to be best, but still have poor accuracy. The addition of 10 grams per kilogram per day made very little difference, as did 25 grams per kilogram per day. Elimination of method errors dropped the caseload from 25 to 22, and the addition of 10 and 25 grams per kilogram per day further reduced the caseload. The elimination of the method errors brought formulae 10 and 12 into a reasonably accurate estimation of fetal weights. It therefore appears that formulae 10 and 12 are probably the best, with 11, 1, 4, 5, and 9 also satisfactory.

It was decided to look at twins separately, and 20 fetuses (10 patients) are included in the eleventh group. It appears the results are essentially the same, in that formulae 1, 4, 10, 11, and 12 all seem to be superior to the other formulae. The addition of 10 grams or 25 grams or the elimination of method errors seems to make little difference in this group.

We next considered breech pregnancies at 30 weeks or more (group twelve), breech pregnancies 30 weeks or less (group thirteen), oligohydramnios 30 weeks or more (group fourteen), oligohydramnios 30 weeks or less (group fifteen).

Group twelve contains the material on breech pregnancies 30 weeks or more who delivered within 3 days after real-time scan. It appears that formulae 2 and 3 are slightly more valuable in this subset of patients, but again, 9, 10, 11, and 12 performed well. There seem to be little benefit in adding 10 grams or 25 grams per kilogram a day. There was marked improvement with elimination of method error, but unfortunately there were many method errors, which reduced the caseload to less than half.

The thirteenth group contained breeches less than 30 weeks gestation, and in this particular subset of 9 patients the performance of formulae 2 and 3 did not hold up, and once again, formulae 1, 4, 9, 10, 11, and 12 proved to be superior. There were no cases with gross method error, and the addition of 10 and 25 grams per kilogram made no change in the results.

Group fourteen is made up of patients who have oligohydramnios 30 weeks or more gestation, regardless of presentation who delivered within 3 days after real-time scan. This again seems to maintain the pattern that the same formulae are fairly accurate in comparison to others. In this particular case, formulae 10, 11, and 12 are best with 9, 1, and 4 following. Formula 3, which is reported to be useful in premature rupture of the membranes, does perform well, but not quite as well as formulae 10, 11, or 12. Formula 2, again, fails to meet the performance of the above-mentioned formulae. The addition of 10 and 25 grams per kilogram to the estimated weights, whether using raw figures or figures corrected for method errors, seems to make little difference.

Group fifteen consists of 12 cases of patients with oligohydramnios less than 30 weeks who delivered within 3 days after real-time scan. Although less accurate than with the larger babies, formulae 9, 10, 11, and 12 seem to perform better than the others. Adding 10 or 25 grams does not seem to make any difference. However, eliminating the method errors and reducing it to 8 cases improves the accuracy, as one would expect. The addition of both 10 and 25 grams seems to improve the accuracy even more, but the sample is so small it is difficult to draw a conclusion.

Summary and Conclusions

It appears, for our population at least, that any one of six of the formulae (1, 4, 9, 10, 11, and 12), are satisfactory for use in estimating fetal weight in all gestational age groups from 20 weeks on. In an overall review, formula 12 seems to predict slightly better than the others. Formula 12 functioned as well, if not better, than all formulae, except in the case of twins and breeches of 30 weeks gestation or less. Despite this, the performance of formula 12 in these two categories was excellent. Therefore, one can conclude that the use of the femur length and head circumference, along with the biparietal diameter and abdominal circumference in the weight formula produces the best results. In a like manner, formula 11, making use of the HC, AC, and FL, yielded results almost as good as formula 12 and proved to be quite useful. Formula 10, making use of the BPD, AC, and FL, functioned third best, but fell off slightly in twins, breeches after 30 weeks, and breeches less than 30 weeks with oligohydramnios.

We therefore would recommend formula 12 for general use. Formula 9 should be very useful if head measurements are difficult to obtain, and formulae 1 or 4 should be quite useful if accurate femur lengths cannot be obtained.

Formula 2, our addition of 15 percent to formula 1, proved to be of no value at all and should not be considered. Formula 4 does have value in fetuses of less than 1500 grams,[3] but still is not generally as accurate as those that measure the femur length and head circumference along with the other parameters. Formula 7 proved disappointing when compared to formulae 9, 10, 11, and 12 in patients below 34 weeks.[6] Likewise, formula 8 functioned poorly for fetuses less than 2000 grams[7] in our study.

The addition of 10 grams per kilogram per day seems to be of some use in improving accuracy of prediction

of weight of those fetuses who were 28 weeks or greater and in oligohydramnios under 30 weeks. However, the number of cases of the latter represent a small sample. It is also doubtful whether the improvement is worth the effort, and in general, the addition of 10 grams per kilogram per day from the day of the scan to the date of delivery would seem to be of little value. The addition of 25 grams per kilogram per day was of no value, other than in a small sample of oligohydramnios less than 30 weeks, and at times it was detrimental to the results.

Formula 9 was close behind formulae 10, 11, and 12 except in twins, and despite this it predicted fairly well with twins. The importance of this is that Formula 9 makes use of femur length and abdominal circumference only, functioned quite satisfactorily in all but breeches and twins, where they did not function quite as well as the formulae listed above.

In summary, our findings suggest the following:

1. The estimation of fetal weight is enhanced by the addition of femur length to head and abdominal measurements as described by Hadlock et al.[8]
2. The use of head circumference along with abdominal circumference and femur length is equally as accurate as the combined use of biparietal diameter, head circumference, abdominal circumference, and femur length.
3. The use of head circumference is slightly superior to the biparietal diameter when either is combined with femur length and abdominal circumference.
4. When the head is not accessible for measurement, the formula incorporating only the femur length and abdominal circumference provides acceptable results.
5. Addition of 10 grams per kilogram per day for each day from ultrasound examination to delivery seems to be of some use in improving accuracy of weight prediction for those fetuses who were 28 weeks or greater.
6. The addition of 25 grams per kilogram per day was of no value.

References

1. Shepard MJ, Richards VA, Berkowitz RL, Warsof SL, Hobbins JC. An evaluation of two equations for predicting fetal weight by ultrasound. Am J Obstet Gynecol 1982;142:47
2. Divon MY, Chamberlain MB, Sipos L, Platt LD. Underestimation of fetal weight in premature rupture of membranes. J Ultrasound Med 1984;3:529.
3. Ott WJ. Clinical application of fetal weight determination by real-time ultrasound measurements. Obstet Gynecol 1981;57:758.
4. Warsof SL, Gohari P, Berkowitz RL, Hobbins JC. The estimation of fetal weight by computer-assisted analysis. Am J Obstet Gynecol 1977;128:881.
5. Higgenbottom J, Slater J, Porter G, Whitfield CR. Estimation of fetal weight from ultrasonic measurement of trunk circumference. Br J Obstet Gynaecol 1975;82:698.
6. Thurnau GR, Tamura RK, Sabbagha R et al. A simple estimated fetal weight equation based on real-time ultrasound measurements of fetuses less than thirty-four weeks' gestation. Am J Obstet Gynecol 1983;145:557.
7. Weinberger E, Cyr DR, Hirsch JH, Richardson T, Hanson JA, Mack LA. Estimation of fetal weights less than 2000g: An accurate and simple method. AJR 1984;141:973.
8. Hadlock FP, Harrist RB, Sharman RS, Deter RL, Park SK. Estimation of fetal weight with the use of head, body, and femur measurements - A prospective study. Am J Obstet Gynecol 1985;151:333.
9. Hadlock FP, Harrist RB, Carpenter RJ et al. Sonographic estimation of fetal weight Radiology 1984;150:5335.
10. Deter RL, Harrist RB, Hadlock FP, Poindexter AN. Longitudinal studies of fetal growth with the use of dynamic image ultrasonography. Am J Obstet Gynecol 1982;143:545.
11. O'Brien MB, Queenan JT. Growth of ultrasound fetal femur length during normal pregnancy. Am J Obstet Gynecol 1981;141:833.
12. Hendricks CH. Patterns of fetal and placental growth: The second half of pregnancy. Obstet Gynecol 1964;24:357.
13. Williams RL, Creasy RK, Cunningham GC, Hawes WE, Norris FD, Tashiro M. Fetal growth and perinatal viability in California. Obstet Gynecol 1982;59:624.

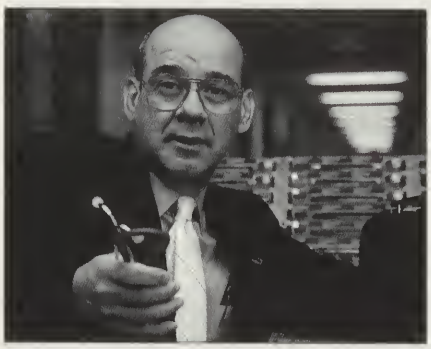
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Case Report: Adult Scurvy

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Adult scurvy, a rare condition in the United States (incidence 1:100,000), often is not recognized because of its rarity and diverse clinical manifestations.

Scurvy is seen occasionally despite improved standards of living and availability of food. Those frequently affected are people living alone and alcoholics. Scurvy often is not recognized by physicians because of its rarity and diverse clinical manifestations. Since diagnosis depends on a good history and physical examination, familiarity with risk factors and clinical manifestations of scurvy can increase the chances of diagnosis. We report a case of scurvy in a patient whose diet was extremely deficient in ascorbic acid.

Case Report

A 54-year-old white male presented with a two-week history of reddish discoloration of the skin on the anterior aspects of both legs. The discoloration started as circular spots, 5 cm in diameter and progressively increased in size to involve the entire lateral aspects of both legs. The patient noticed a similar discoloration on his left forearm. There were multiple red circular spots, 3 mm in size over the anterior aspects of both thighs. Associated symptoms included bleeding gums (especially while eating), lethargy, weakness, and dizziness. There was no history of trauma, upper respiratory tract infection, fever, headache, syncope, or joint pains.

He was an alcoholic of 20 years' duration and claimed to have lost some weight in the last month. He had smoked two packs of cigarettes per day for 35 years and was not taking any medications.

Physical examination revealed a blood pressure of 92/50 mm Hg with no orthostatic changes, a pulse of 90/minute, and a temperature of 99.0°F. There was a mild icterus. The upper jaw was edentulous, and the lower jaw showed poor dental hygiene and bleeding gums. The spleen was palpable 3 cm below the left costal margin. There was no free fluid in the abdominal cavity. The lower extremities revealed large ecchymoses on the lateral aspects of both legs. The skin was dry and there was mild ankle edema. There were multiple nonpalpable purpuric areas on the anterior aspects of both thighs. The left forearm had four ecchymotic areas each approximately 5 cm in size.

Laboratory values on admission included WBC 7,800,

hematocrit 44%, platelets 157,000, prothrombin time 12/s, partial thromboplastin time 31/s, total bilirubin 2.8 mg/dl (direct 1.3 mg/dl, indirect 1.5 mg/dl), sodium 122 mEq/L, mild protein uria, and normal LDH, SGPT, and SGOT.

Initial diagnostic considerations were bleeding secondary to hematologic abnormalities, vasculitis, and scurvy. Further evaluation for metabolic abnormalities and vasculitis was unremarkable. Subsequent dietary history revealed that the patient had consumed only alcohol and tea for the past month. The last time he had eaten citrus fruit was three months before. A serum ascorbic acid level was drawn, measuring 0.1 mg/dl (normal 0.6 - 2 mg/dl). The patient was placed empirically on ascorbic acid, and when examined two weeks later, he showed marked improvement with no evidence of new bleeding.

Comment

Adult scurvy usually presents with fatigue, weight loss, bleeding gums, discoloration of the lower extremities, pedal edema, and tenderness in the ankles. The petechiae, purpura, and ecchymoses suggest bleeding disorders due to platelet or coagulation abnormalities. The swollen ankles with hyperpigmentation often lead to consideration of conditions such as cellulitis and deep venous thrombosis.

The most important clues for early diagnosis are seen in the skin. The classic sign is a hyperkeratotic hair follicle with perifollicular bleeding. Because of abnormalities in keratin formation, the hairs become deformed (corkscrew deformity and swan neck deformity).[1] The prominent clinical manifestations (subcutaneous and mucosal bleeding) are due to degeneration of connective tissue within vessel walls.[2] Ascorbate is required as a cofactor for the enzymes prolyl and lysl-hydroxylase in the hydroxylation of proline and lysine residues in the pro-alpha chains of collagen. The defective collagen synthesized in the absence of ascorbate results in breakdown of connective tissue in vessel walls, perivascular areas, and keratin.[1]

Seventy-five percent of patients with scurvy are anemic. Factors leading to anemia include blood loss into tissues, blood loss via the gut, hemolysis, dietary deficiency, and deranged folate and iron metabolism. Ascorbate enhances iron absorption by reducing it from the ferric form to the ferrous form. Hypotension due to direct myocardial damage and inability of resistance vessels too constrict in response to adrenergic stimuli is seen in scorbutic patients.[1] Psychological changes in the form of hysteria, depression, and hypochondriasis are common.

Treatment consists of ascorbic acid supplements at 300 to 500 mg per day orally until 4g is administered. The total body pool of vitamin C varies from 1.5g to 3g.[3] Patients respond dramatically. Maintenance dosage of 100 mg per day for three to four months replenishes the body's store of the vitamin.[4]

Those at greatest risk for scurvy are alcoholic, schizophrenic, or elderly men living alone.[5] These individuals often cook for themselves or eat in restaurants and do not include foods rich in vitamin C in their diet. Further management consists of educating the patient about selection of a diet rich in vitamin C.

References

1. Reuler JB, Broudy VC, Cooney TG. Adult scurvy. JAMA 1983;253:805-807.
2. Stolman JM, Goldman HM, Gould GS. Ascorbic acid and blood vessels. Arch Pathol Lab Med 1961;72:535-45.
3. Braunwald E, Isselbach KJ et al. Harrison's Principles of Internal Medicine, 11th ed. New York: McGraw Hill, 1987:414-16.
4. Olson JA, Hodges RE. Recommended dietary intakes (RDI) of vitamin C in humans. Am J Clin Nutr 1987;45:693-703.
5. Carney MWP. A case of scurvy. Br Med J 1986;293:883-84. ■

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Case Report: Lateral Lumbar Synovial Cyst Computed Tomography Diagnosis

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A symptomatic synovial cyst was preoperatively misdiagnosed because of its lateral location. This case illustrates another lesion to include in the differential diagnosis of masses lateral to the neural foramen in the lumbar spine in patients with degenerative facet arthritis.

Lumbar ganglion and synovial cysts are recognized causes of lower back pain with or without radiculopathy.[1-3] Since the advent of Computed Tomography (CT) and magnetic resonance (MR) scanning, their diagnosis has become more common. The true incidence of these lesions is not well established.[4] The lesions have a nonspecific myelographic appearance but a characteristic CT pattern. Over an 18-month period, four symptomatic synovial cysts were diagnosed and operated on at St. Agnes Hospital. One of these lesions was misdiagnosed preoperatively because of its lateral location. To our knowledge, this CT finding has not been described.

Case Report

The patient, a 64-year-old farmer with a nine-month history of back pain originally with a right sciatica now resolved, complained of back pain with a left sciatica. There were painful paresthesias into the left leg down to his ankle and numbness into his foot. He complained of focal numbness in the medial aspect of his left calf.

Physical examination demonstrated restricted straight leg raising 75 percent of normal, which does not aggravate pain, with minus one dorsiflexion EHL weakness and trace quadriceps weakness left only. His knee jerks were 2+ right and 1+ left with equal ankle jerks and numbness in the medial aspect of his left calf to pinprick, suggestive of an L4 dermatome.

A CT scan (Figure 1) revealed a soft tissue mass lateral to the left L4-5 neural foramen that was thought to represent a neurilemmoma or lateral disc herniation. Subsequent myelogram revealed no abnormal mass within the spinal canal. The lateral lesion was not demonstrated on myelogram. A microlumbar hemilaminectomy of L4 with left L4-5 facetectomy and left L4-5 inferior foraminotomy with excision of tumor of L4 nerve root dorsal laterally was done. The tumor was a cyst that was dorsal lateral to the L4 root adherent but not involving the nerve root without any attachment to the joint capsule noted.

Pathology revealed a synovial connective tissue fibrin-walled mucin-containing cyst consistent with juxta-articular ganglion. The patient recovered from his painful syndrome and resolved his neurologic deficits postoperatively.

Discussion

The terms synovial cyst and ganglion cyst will be used interchangeably. Pathologically, a synovial cyst represents a synovial lined cyst that communicates with the facet joint and results from proliferation of the synovium in response to chronic irritation or herniation of synovium through a capsular tear.[4,5] A ganglion cyst does not have a synovial lining, is not connected to the facet joint, and is filled with myxoid material. It is not clear whether a ganglion cyst arises from myxoid degeneration of a synovial cyst or whether it represents a separate entity.[6] Neither can be distinguished from the other on CT scanning, and both are associated with degenerative facet arthritis. On CT scanning, a lumbar synovial cyst (Figure 2) appears as an epidural soft tissue mass contiguous with an arthritic facet joint.[2,4] Rim calcifications may be present. Gas from a vacuum facet may be located within the cyst.[7,8]



Figure 1. CT scan of the L4-5 disc space. Note the rounded soft tissue density mass (arrow heads) lateral to the neural foramen. Also note the degenerative arthritic changes in the facet joints.

Symptomatology may be confusing in patients with lumbar synovial cysts. Because facet arthritis is always present, most synovial cysts are secondary findings to the patient's underlying facet arthropathy. Only when these cysts compress adjacent nerve roots are the cysts themselves symptomatic. Many synovial cysts are located dorsal to the facet and therefore could not compress the nerve root.[5] It is well documented by follow-up CT scanning that synovial cysts can spontaneously resolve.[4] Percutaneous corticosteroid injection has been successfully used to treat synovial cysts with and without radiculopathy.[9] Nearly 90 percent of lumbar synovial cysts are located at the L4-5 level. This is attributed to the fact that the L4-5 disc space is the most mobile and the level most associated with degenerative arthritis in the lumbar spine. Synovial cysts also have been reported at L5-S1 and L3-4.[1] Conservative therapy or perhaps steroid injection would be a reasonable initial therapy when a synovial cyst is diagnosed. Only after failure to improve would surgery be planned.

Our case posed a problem because the diagnosis was not made preoperatively. Differential diagnosis of the mass lateral to the neural foramen would include a nerve root tumor and a lateral herniated disc fragment as a more likely diagnosis although degenerative facet arthritis was present (Figure 1). The fact the cyst did not communicate with the facet joint further clouded the diagnosis. As mentioned, the cyst need not com-



Figure 2. Postmyelogram CT of the L4-5 disc space revealing the typical CT findings of a rounded soft tissue density mass contiguous with an arthritic facet compressing the thecal sac posterolaterally (arrow heads).

municate with the facet joint even though it may have originated from the joint.

This case illustrates another lesion to include in the differential diagnosis of masses lateral to the neural foramen in the lumbar spine in patients with degenerative facet arthritis.

References

1. Pendleton D, Carl B, Pollay M. Spinal extradural benign synovial or ganglion cyst: Case report and review of the literature. Neurosurgery 1983;13:322-26.
2. Casselman ES. Radiologic recognition of symptomatic spinal synovial cysts. AJNR 1985;6:971-73.
3. Abdullah AF, Chambers RW, Daut DP. Lumbar nerve root compression by synovial cysts of the ligamentum flavum. J Neurosurg 1984;60:617-20.
4. Hemminghytt S, Daniels DL, Williams AL, Haughton VM. Intraspinal synovial cysts: Natural history and diagnosis by CT. Radiology 1982;145:375-76.
5. Kao CC, Uihlein A, Bickel WH, Soule EH. Lumbar intraspinal extradural ganglion cyst. J Neurosurg 1968;29:168-72.
6. Jackson DE, Atlas SW, Mani JR, Norman D. Intraspinal synovial cysts: MR imaging. Radiology 1989;170:527-30.
7. Spenser RR, Jahnke RW, Hardy TL. Dissection of gas into an intraspinal synovial cyst from contiguous vacuum facet. J Comput Assist Tomogr 1983;7:886-88.
8. Schulz EE, West WL, Hinshaw DB, Johnson DR. Gas in a lumbar extradural juxtaarticular cyst: Sign of synovial origin. AJR 1984;143:875-76.
9. Bjorkengren AG, Kurz LT, Resnick D, Sartoris DJ, Garfin SR. Symptomatic intraspinal synovial cysts: Opacification and treatment by percutaneous injection. AJR 1987;149:105-107. ■

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Case Report: Thyrotoxic Periodic Paralysis

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Periodic flaccid paralysis of skeletal muscle occurring in a thyrotoxic patient, an unusual and dramatic event, is seen predominantly in Oriental men. It is important to remember the clinical association between periodic paralysis and thyrotoxicosis.

A 43-year old Oriental physician was admitted to the Medical Intensive Care Unit at St. Agnes Hospital with a chief complaint of an inability to move his lower extremities.

The night before admission, the patient had gone to bed at 9 pm. At midnight, he awoke with "muscle aches" in both thighs. He also had mild weakness but was able to get out of bed and descend a flight of stairs holding onto a handrail for support. After about one hour of no change in his weakness, he ate a snack of waffles with blueberry syrup and went back to bed. Upon awakening in the morning, he experienced intense weakness of his lower extremities and mild weakness of his upper extremities.

Over the course of the preceding year, once every month or two, this patient had noted similar but less severe episodes on awakening. These attacks were noted to follow heavy meals of carbohydrates (usually fruit cake and candy) consumed the night before. There was no vomiting or diarrhea.

Past medical history was negative for any previous medical or surgical problems. He was not on any diuretics or other medications. There was no family history for thyroid disease or similar muscle symptoms. His father was Chinese and his mother was Filipino.

Review of systems was negative for any symptoms or signs of thyrotoxicosis: weight loss, heat intolerance, palpitations, tremulousness, goiter, exophthalmos, or weakness other than during the episodes described above.

Physical examination revealed a somewhat restless and apprehensive man. Height was 5'2", weight 155 lbs. Blood pressure was 140/70 mm Hg. Pulse was 100 beats/minute, respirations were 18 per/minute, T = 98.6°F . There was no exophthalmos, lid lag, or thyroid enlargement. The remainder of the general examination was normal.

Neurological examination initially was positive for severe weakness of the proximal muscles of the lower extremities and slight weakness of the upper extremities. He was unable to lift his legs while in the supine position. There was no evidence of fasiculations or atrophy. Tendon reflexes were absent. Muscle tone was diminished. Cranial nerve and sensory examinations were normal.

Serum potassium (K^+) was 2.0 meq/1 (3.5-5.5); CBC, BUN, creatinine, CPK, and other general laboratory studies were normal. EKG revealed sinus tachycardia and a prolonged QT interval (no u waves were seen) of 0.48 seconds (normal less than 0.35).

An initial consideration was Landry's Guillian-Barré Syndrome. However, a lumbar puncture was normal.

A total of 115 meq KCl was administered over an 8 hr period; 80 meq orally by liquid and 35 meq intravenously along with 5% dextrose and one-half normal saline. Muscle weakness completely resolved approximately 6 hrs after initiation of KCl therapy. Tendon reflexes returned to normal. Eight hours after beginning KCl, serum K^+ revealed an elevated value of 6.0 meq/l. Subsequently, serum K^+ levels returned to normal (Figure 1).

Thyrotoxicosis was considered because of the presence of hypokalemia and the history of periodic weakness occurring in an Oriental man.

Thyroid studies (Table 1) were performed and confirmed the diagnosis of thyrotoxicosis due to diffuse toxic goiter. Serum glucose, insulin and K^+ values after 100 gm of glucose tolerance test are also recorded in Table 1. No muscle symptoms or electrocardiographic changes were noted during that test. The patient was discharged from the hospital 28 hours after admission.

As an outpatient, he was given propranolol 60 mg/day and 13.6 millicuries of radioactive I-131. Three months following I-131 therapy, he developed symptoms of hypothyroidism including easy fatigability, cold intolerance, puffiness, and hoarseness. Thyroid stimulating hormone (TSH) was elevated to 26 uU/ml (0.4-3.8) with a thyroxine (T4) of 8.1 ug/dl (4.5-12.0). Propranolol was discontinued. He was begun on L-thyroxine replacement therapy and has since been asymptomatic.

Discussion

Thyrotoxic periodic paralysis (TPP) initially was described by Charcot and Mobius in the latter part of the nineteenth century.[1] Since then, there have been a number of reports describing this unusual association, most frequently noted in Orientals;[2,3] 90 percent of the patients reported in the literature are from Asia. The incidence of periodic paralysis in Japanese and Chinese patients who have thyrotoxicosis is 2 percent. The disorder is more often noted in males; the incidence of periodic paralysis in thyrotoxic males is 8 percent while it is only 0.4 percent in thyrotoxic females. Reports of TPP occurring in other ethnic groups are rare.

McFadzean and Yeung[3] studied 25 Chinese patients with TPP, and their findings are typical for what generally has been reported. Muscle attacks occur most often after the patient retires at night and are variable in their severity. Often premonitory symptoms of muscle aching and weakness start in the lower extremities, but these symptoms may improve with light exercise. The intensity of the weakness may progress in severity to a full symmetric flaccid paralysis, usually involving the muscles of the pelvic girdle. Subsequent spreading of weakness can occur and commonly involves the muscles from the neck down. The extensor musculature is more involved than the flexor musculature. A recent ingestion of a large carbohydrate meal and/or vigorous exercise is usual. The muscles of respiration, speech, and swallowing often are spared, as are the cranial nerves and the sensory nervous system. Asymmetric paralysis may occur in muscles that have been particularly over-

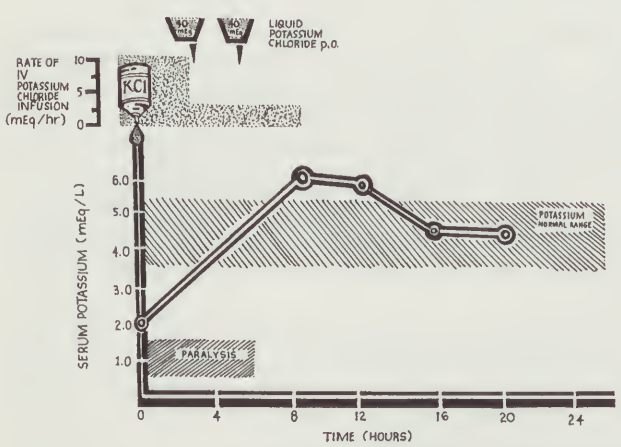


Figure 1. Serum Potassium Levels During and After Muscle Paralysis

Table 1. Thyroid Function Tests

Thyroid Function Test	Patient Values	Normal Range
TSH	< 0.15 uU/ml	(0.4 - 3.8)
T3 Total	337 ng/dl	(80 - 200)
Free T4	3.31 ng/dl	(1 - 2.5)
Total T4	12.3 ug/dl	(4.5 - 12.0)
Antimicrosomal thyroid antibody titer	1/6400	(< 1/100)
Thyroid Uptake I-131		
2 hours	25 %	(< 12%)
6 hours	31 %	(6-16%)
24 hours	31 %	(18 - 30%)

Thyroid scan - diffuse uptake

TSH values at 10, 30, and 60 minutes were < 0.15 uU/ml after 500 ug of TRH IV.

Results of Glucose Insulin and Potassium after 100 Grams Oral Glucose

Time	Glucose mg/dl	Insulin uU/ml	K+ mEq/L
Fasting	105	20 (8 - 22)	4.7 (3.5 - 5.5)
.5 hour	238	39	5.1*
1 hour	263	279	4.0
1.5 hour	222	369	3.7
2 hour	172	241	3.8

* Specimen hemolyzed.

worked. Recovery of muscle power occurs spontaneously within hours, but may be delayed for days. Muscles have been described as being tender during and shortly after the attack. Tendon reflexes are depressed during paralysis.

An attack of flaccid paralysis can be provoked by the administration of glucose (100 gms or more orally is needed) or glucose and insulin. Inducing an attack for diagnostic purposes is successful in most patients, but more than one attempt may be necessary and should be done with electrocardiographic monitoring. Serum K^+ levels invariably decrease from baseline values (mean fall of 1.2 SD 0.4 meq/1) and in most patients to below the normal range. Increased severity of muscle paralysis correlates with the lowest serum K^+ levels. There is a concomitant fall in urinary excretion of K^+ and no change in fecal K^+ during a paralytic episode. The fall in serum K^+ is due to a redistribution of K^+ from the extracellular fluid (ECF) to the intracellular fluid (ICF) space presumably into muscle.[4] Recovery from paralysis correlates with a return of serum K^+ to the normal range. Transient elevation of serum K^+ levels can be observed, especially with K^+ replacement as in this report. Thyrotoxic patients without a history of periodic paralysis do not develop muscle paralysis after attempts to induce attacks as described above.

Electrocardiographic changes of hypokalemia often are observed. Serious atrial or ventricular arrhythmias have been reported.[5] Serum PO4 levels have been variably depressed during the muscle paralysis.

TPP is sporadic, and a family history for the illness often is missing. However, an underlying genetic basis for the disorder is suggested by family studies from two reports. Affected siblings in one family shared identical leukocyte haplotypes.[6,7]

The etiology of the thyrotoxicosis in TPP most often is due to Graves' disease. Other causes described are multinodular goiter,[8] lymphocytic thyroiditis,[9] and exogenous thyroid hormone.[10] Symptoms of thyrotoxicosis usually are recorded preceding or occurring simultaneously with attacks of muscle weakness. There have been some reports of patients whose attacks of periodic paralysis preceded symptoms of thyrotoxicosis.[2] It is possible that the symptoms of thyroid overactivity in these patients were subtle and not recognized. It is difficult to judge whether there is a correlation between the severity of thyrotoxicosis and muscle paralysis.

Definitive therapy of TPP is linked to the control of thyrotoxicosis by either radioactive I-131, antithyroid drugs, or thyroid surgery. Patients are advised to curtail vigorous exercise and the consumption of large carbohydrate meals that may precipitate a paralytic attack while still thyrotoxic.

KCl and spironolactone have been used as prophylactic agents with limited success. Reserpine, an antiadrenergic agent that depletes neuronal norepinephrine, is not effective in curtailing a muscle attack. Propranolol, on the other hand, a nonselective Beta antagonist, has protected the majority of TPP patients from experiencing spontaneous or induced paralytic attacks.[11] While patients are taking propranolol, a large carbohydrate meal can still induce a fall in serum potassium, but the patient remains protected from muscle paralysis. With euthyroidism, patients with TPP are no longer at risk to develop spontaneous or induced attacks of paralysis.

For the management of acute muscle paralysis, oral liquid KCl is preferred. Intravenous solutions of KCl with glucose and/or saline have been noted to be associated with a delay in the correction of serum K^+.

Table 2 lists the differential diagnosis to be considered in a patient presenting with hypokalemia and flaccid muscle paralysis.[12] Symptoms and signs of thyrotoxicosis can be subtle or easily overlooked, and studies of thyroid status should be given careful consideration in the evaluation of a patient with hypokalemia and paralysis.

The clinical presentation of periodic paralysis as described for TPP is similar to what is observed for the hypokalemic form of primary periodic paralysis (HPP). Primary periodic paralysis (initially described in 1853) has an extensive medical literature.[13] The disorder has been separated into hypokalemic (HPP), normokalemic, and hyperkalemic forms based on the predominant aberration of serum K^+ noted during a muscle paralysis. HPP differs from TPP in that HPP

Table 2. Causes of Hypokalemia*

- Renal
  - Metabolic alkalosis
  - Diuretics, osmotic diuresis
  - Excessive mineralocortical
    1. Primary aldosteronism
    2. Secondary aldosteronism
    3. Ectopic ACTH syndrome
  - Renal tubular disorders
    1. Renal tubular acidosis
    2. Leukemia
    3. Liddle's syndrome
    4. Antibiotics
  - Magnesium depletion
- Extrarenal causes of hypokalemia
  - Gastrointestinal
    1. Vomiting (mainly renal K+ loss)
    2. Diarrhea
    3. Villous adenoma
    4. Laxative abuse
  - Skin losses
    1. Sweat
    2. Burns
  - Redistribution of K+ from ECF to ICF
    1. Alkalosis
    2. Insulin
    3. Glucose infusion (endogenous insulin)
    4. Beta-adrenergic agonists
    5. Recovery from exercise
    6. Barium poisoning
    7. Vitamin B12 therapy for pernicious anemia
    8. Familial hypokalemic periodic paralysis
    9. Thyrotoxic periodic paralysis

* Adapted from Brown RS. Extrarenal potassium homeostasis. Kidney Int 1986; 330: 116-27.

is a familial autosomal dominant disorder with low penetrance in females occurring in Caucasians and having its onset by adolescence. Muscle paralysis of HPP is not affected by excess thyroid hormone. A comparison between TPP and HPP is shown in Table 3.

Patients with TPP and HPP are suspected to share a similar underlying electrophysiological abnormality of the skeletal muscle membrane. Caution is needed when generalizing about rare disorders from a few studies, but it seems that insulin plays a pivotal role in the pathogenesis of the muscle paralysis in both TPP and HPP. In 1957, Zieler and Andreas demonstrated that in HPP patients, hypokalemia was associated with movement of K^+ ion from plasma into skeletal muscle during spontaneous attacks of muscle paralysis or during those induced by glucose and insulin.[14] These investigators demonstrated insulin's effect on K^+ was independent of its effect on glucose utilization.[15]

Insulin had significantly higher affinity for skeletal muscle membranes from a patient with HPP than from normal controls.[16] Increased binding would explain increased sensitivity of K^+ uptake into muscle from HPP patients.[17] Insulin increases skeletal muscle membrane permeability to Na^+ in part by an effect on sodium-hydrogen (Na^+-H^+) exchange,[18] which alters resting membrane potential. A partial depolarization of the resting muscle membrane potential between attacks of paralysis has been noted in HPP and is believed to reflect an increased membrane permeability to Na^+ ions.[19] Insulin stimulates the electrogenic Na pump,[20] which leads to hyperpolarization of the muscle membrane. The Na pump is a transmembrane ATPase that extrudes 3 intracellular Na^+ ions from the cell in exchange for $2K^+$ ions. Pump activity is depressed by low K^+ ions exterior to the cell.[21]

Clinically, patients with TPP are vulnerable to acute muscle paralysis as a result of the inciting factors that are listed in Table 3. Markedly elevated insulin levels (300-650 uU/ml) have been observed during muscle paralysis in some TPP patients.[22,23] It is speculated that an increased surge of insulin following large carbohydrate containing meals is reflected by increased levels of the hormone acting locally at the muscle membrane.

Thyrotoxicosis affects skeletal muscle membrane in TPP in a number of ways. The Beta 2 adrenergic receptor is hyperresponsive in thyrotoxicosis and enhances hyperinsulinism after a glucose meal.[24] Beta 2 receptors modulate K^+ movement into cells as does insulin by extrarenal mechanisms that involve increased activity of the Na pump.[12] Thyroid hormone also increases the activity of the Na pump.[25] It is tempting to speculate that in TPP patients, thyroid hormones work in concert with increased insulin and Beta 2 adrenergic activity to alter resting muscle membrane potentials that lead to muscle paralysis and/or hypokalemia (Figure 2).[26] ECF K^+ is lowered by the combined hormonal stimulation of the Na pump. In turn, the Na pump is depressed by low ECF

Table 3. Clinical Features of TPP and HPP

	TPP	HPP
Genetics	Sporadic ? HLA influence	Familial autosomal dominant
Predominant ethnic background	Oriental	Caucasian
Sex predominance (M:F ratio)	5-10:1	3:1
Age at onset (peak yrs)	30-60	< 20
Flaccid paralysis	yes	yes
Redistribution of K+ between ECF and ICF	yes	yes
Inciting factors:		
Carbohydrates	yes	yes
Carbohydrates and insulin	yes	yes
Rest after exercise	yes	yes
Epinephrine	?	yes
Alcohol	yes	yes
Mineralocorticoids	yes	yes
Thyroid hormone	yes	no
Serum K+ during attack	↓ >N	↓ >N
Serum K+ after recovery	N or ↑	N or ↑
Frequency of attacks (greatest during)	Summer	Winter
Muscle histology	Normal or minimal vacuolar myopathy	Vacuolor myopathy
Treatment:		
Acute	Oral KCl	Oral KCl
Long term	Restore euthyroidism Propranolol	Oral KCl, Acetazolamide, Spironolactone, low NaCl and carbohydrate diet
Prognosis:	Good	Good: ↓ Attack frequency with ↑ age. Some patients have residual muscle weakness/atrophy.

? = conflicting data ↑ = increased ↓ = decreased N = normal range

K^+ resulting in depolarization and an inexcitable muscle.[27]

A defect in the role of calcium in the excitation-contraction cycle of muscle also has been observed in TPP.[28] Decreased calcium transport into the sarcoplasmic reticulum (SR) during muscle paralysis has been found in a patient with TPP using *in vitro* muscle studies. Calcium-ATPase levels were depressed during paralysis but not after recovery. Muscle Ca-ATPase levels are normal in patients with thyrotoxicosis without a history of periodic paralysis. The relationship between altered calcium uptake into skeletal muscle SR and paralysis to abnormalities in excitation of muscle membrane has not been clarified.

Our patient is a typical example of TPP with hypokalemia. A precipitating factor was large carbohydrate meals, although we could not provoke an attack of paralysis or hypokalemia with 100 gm oral glucose. Muscle strength returned to normal with potassium therapy. Correction of the thyrotoxicosis has resulted in no further attacks of periodic paralysis.

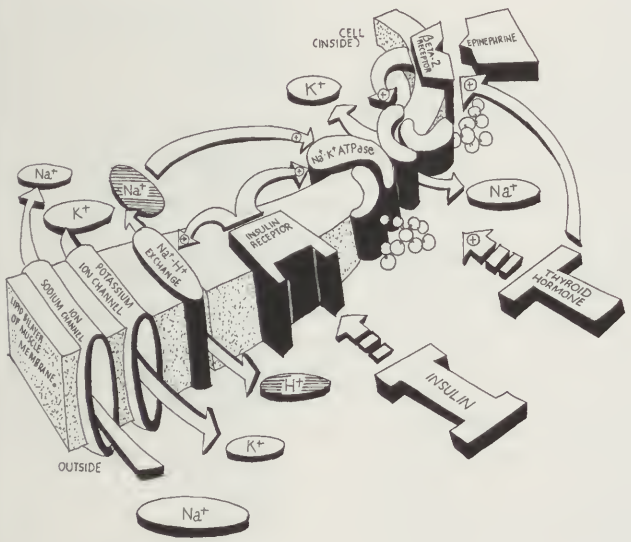


Figure 2. Interaction of thyroid hormone, insulin, and Beta - 2 adrenergic receptors and their effect on ion movements in skeletal muscle membrane

References

1. Dunlap HF, Kepler EJ. A syndrome resembling familial periodic paralysis occurring in the course of exophthalmic goiter. Endocrinology 1931;15:541-46.
2. Satoyoshi E, Murakami K, Kowa H et al. periodic paralysis in hyperthyroidism. Neurology (Minneap) 1963;13:746-52.
3. McFadzean AJS, Yeung R. periodic paralysis complicating thyrotoxicosis in Chinese. Br Med J 1967;1:451-55.
4. Shizume K, Shishiba K, Sakuma M et al. studies on electrolyte metabolism in idiopathic and thyrotoxic periodic paralysis: I. arteriovenous differences of electrolytes during induced paralysis. Metabolism 1966;15:138-44.
5. Fisher J. Thyrotoxic periodic paralysis with ventricular fibrillation. Arch Intern Med 1982;142:1362-64.
6. McFadazean AJS, Yeung R. Familial occurrence of thyrotoxic periodic paralysis. Br Med J 1969;1:760.
7. Sum CF, Fok ACK, Tan KT et al. Human leucocyte antigen in a Chinese family with thyrotoxic periodic paralysis in Singapore. Br Med J (Clin Res) 1988;297:594-95.
8. Ober KP, Hennessey JF. Jodbasedow and thyrotoxic periodic paralysis. Arch Intern Med 1981;141:1225-27.
9. Tinker TD, Vannatta JB. Thyrotoxic hypokalemic periodic paralysis: Report of four cases and review of the literature. J Okla State Med Assoc 1987;80:11-15.
10. Layzer RB, Goldfield E. Periodic paralysis by abuse of thyroid hormone. Neurology 1974;24:949-52.
11. Conway MJ, Seibel JA, Eaton RP. Thyrotoxicosis and periodic paralysis: Improvement with beta blockade. Ann Intern Med 1974;81:332-36.
12. Brown RS. Extrarenal potassium homeostasis. Kidney Int 1986;30:116-27.
13. Talbott JH. Periodic paralysis; A clinical syndrome. Medicine 1941;20:85-143.
14. Zierler KL, Andres R. Movement of potassium into skeletal muscle during spontaneous attack in family periodic paralysis. J Clin Invest 1957;36:730-37.
15. Andres R, Baltzan MA, Cader G et al. Effect of insulin on carbohydrate metabolism and on potassium in the forearm of man. JCI 1962;41:108-15.
16. Hoffmann WW, Adornato BT, Reich H. The relationship of insulin receptors to hypokalemic periodic paralysis. Muscle Nerve 1983;6:48-51.
17. Minaker KL, Meneilly GS, Flier JS et al. Insulin mediated hypokalemia and paralysis in familial hypokalemic periodic paralysis. Am J Med 1988;84:1001-1006.
18. Moore RD. Effects of insulin upon ion transport. Biochim Biophys Acta 1983;737:1-49.
19. Troni W, Doriguzzi CD, Mongini T. Interictal conduction slowing in muscle fibers in hypokalemic periodic paralysis. Neurology (Cleveland) 1983;33:1522-25.
20. Clausen T, Kohn PG. The effect of insulin on the transport of sodium and potassium in rat soleus muscle. J Physiol 1977;265:19-42.
21. Sweadner KJ, Goldin SM. Active transport of sodium and potassium ions: Mechanism, function and regulation. N Engl J Med 1980;302:777-83.
22. Shishiba Y, Shimizu T, Saito T et al. Elevated immunoreactive insulin concentration during spontaneous attacks in thyrotoxic periodic paralysis. Metabolism 1972;21:285-90.
23. Hamada N, Ishii T, Hasegawa M et al. Transient glucose intolerance during attacks of thyrotoxic periodic paralysis. Horm Meta Res 1985;17:301-305.
24. Wajchenberg BL, Cesar FP, Leme CE et al. Effects of adrenergic stimulating and blocking agents on glucose-induced insulin response in human thyrotoxicosis. Metabolism 1978;27:1715-20.
25. Edelman I. Thyroid thermogenesis. N Engl Med 1974; 290:1303-1308.
26. Flatman JA, Clausen T. Combined effects of adrenaline and insulin on active electrogenic Na^+-K^+ transport in rat soleus muscle. Nature 1979;281:580-81.
27. Layzer RB. Periodic paralysis and the sodium-potassium pump. Ann Neurology 1982;11:547-52.
28. Au K, Yeung TT. Thyrotoxic periodic paralysis: periodic variation in the muscle calcium pump activity. Arch Neurol 1972;26:543-46.

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Case Report: Phenytoin Hypersensitivity

Eugene Finan MD, Andrew Trofa MD, and Kenneth Williams MD

From the Department of Internal Medicine St. Agnes Hospital Baltimore.

Phenytoin hypersensitivity is a potentially fatal reaction to the chemical diphenylhydantoin. It is important to inform patients of possible complications and early sentinel signs of adverse drug reactions.

Phenytoin hypersensitivity is a potentially fatal reaction to the chemical diphenylhydantoin (Dilantin, Dihycon, Dilabid, DiLan). While the mechanism of which is unknown, it is presumed to be due to both cell-mediated immunity to phenytoin and to humoral immunity with production of specific antibody to the drug.[1-3] Previous studies of phenytoin hypersensitivity reactions have revealed a multitude of severe, multiorgan manifestations involving the skin, liver, kidney, muscle, lymphoid tissue, and blood.[4] Most cases (74 percent to 94 percent) develop a rash of some sort, typically of a lichenlike or morbilliform variety, sometimes manifested as the Steven-Johnson syndrome.[4,5]

Case Report

A 36-year-old man developed a rash approximately one week prior to admission. His general health had been excellent until ten weeks before admission when he developed a syncopal episode. The patient, employed as a roofer, had never before had syncope. The syncopal workup was extremely exhaustive, and a determination of a seizure disorder was made based on electroencephalogram (EEG). He was begun on phenytoin (Dilantin) at a dose of 400 mg daily. About six weeks after initiation of therapy, the patient developed a rash which began on his hands, wrists, and ankles and spread to the arms, legs, and eventually involved the neck, face, and trunk. The rash continued to spread for four to five days. The patient contacted his private physician who changed the anticonvulsive medication from phenytoin to carbamezipine. The skin eruption worsened, and within 48 hours a fever developed up to 105° F with rigors and sweats. At this time, the patient was referred for admission.

The patient had no history of allergies to medications. He had no other episodes of skin eruptions, no evidence of atopy, asthma, or other allergies. He had a childhood history of rubeola but no other viral exanthems. He had no exposures to tick-infested areas or travel outside the Baltimore area, and there was no history of IV drug use, homosexual activity, or transfusions. He had a history of a Bil-Roth II procedure for peptic ulcer disease and a history of congenital heart murmur. The pertinent family history included

two siblings with a history of epilepsy, but no history of allergies. He had been treated for gonorrhea but had no history of syphilis.

On examination, he had an appearance of a young man in significant distress with both high fever and generalized pruritus. Temperature was 104 ° F oral, heart rate 84 beats/min, respirations 22/min, and blood pressure 128/70 mm Hg. He was anicteric with no jugular venous distention. The neck was supple; thyroid gland was not enlarged. There was no sinus tenderness. There were a few small lymph nodes palpable in the cervical chains, but there was no other lymphadenopathy.

Funduscopic examination showed a slight arterial narrowing but without any other changes.

The skin examination revealed an erythematous and edematous rash involving the face with a vesicular appearance on the neck and ear with yellow drying crust. Erythematous papules and vesicles were seen in the upper extremities. There was marked erythema and edema with a maculopapular eruption on the chest and legs. There were no changes in the nail beds, nor was there involvement of the soles or palms.

Muscle tenderness was noted in the chest, arms, and legs. There was mild joint tenderness on passive motion of the hip and knee joints bilaterally. The range of motion was not affected. There was no weakness in any muscle group at this time.

The heart examination showed a regular rhythm with a grade 3/6 crescendo-decrescendo murmur heard throughout the precordium. There was also a 1/6 diastolic murmur heard at the lower left sternal border without radiation.

The abdominal examination revealed an old incision at midline and a small scar in the left subcostal region. There were normal bowel sounds throughout. The liver and spleen were not enlarged.

Neurologic examination was completely intact in all spheres. Admission chest x-ray was within normal limits. Electrocardiogram (EKG) showed a sinus rhythm with a PR interval of .21s. There was left anterior hemiblock with anterior, septal, and lateral schemia.

The WBC count was 10,400 with 40% segmented, 20% bands, 10% atypical lymphocytes, and 9% eosinophils, hemoglobin 14.6 gm/dl, hematocrit 43.3%, 314,000 platlets, sodium 136 mEq/L, potassium 4.5 mEq/L, chloride 100 mEq/L, bicarbonate 22 mEq/L, BUN 14 mg/dl, creatinine 1.2 mg/dl, and glucose 107 mg/dl.

The urinalysis showed 3+ proteinuria with a pH of 6.0, occasional white cells and red cells but no blood, and there was bile present. The LDH was 1,041 U, SGOT 46 U, SGPT 56 U, CPK 103 U, alkaline phosphatase 159 U, GGT 132 U, albumin 3.9 g/dl, sedimentation rate 37 mm/hr.

Hospital Course

The initial impression was that of phenytoin hypersensitivity reaction. The patient was febrile and continued with temperature elevations to 104 ° F and remained so for four days. He was given aspirin 650 mg every four hours along with oxycodone for pain relief. An echocardiogram was performed to evaluate the heart murmur, and it revealed a thickened aortic valve. He was started empirically on IV nafcillin because of possible endocarditis. A total volume of 80cc of blood was obtained for culture; there was no growth after two weeks. In view of the constellation of symptoms, the temporal association with the use of phenytoin, and the negative evaluation for infection, the fever was attributed solely to phenytoin toxicity. Nafcillin was stopped.

Analysis of the patient's serum revealed a marked elevation of his CPKs with a day one level of 2,024 units peaking on the day five with 9,971. MB fraction was obtained and was found to be .5 percent of the total. LDH also increased and rose to 3,181 units on day five. Aldolase level was obtained to confirm muscle inflammation and a level of 21.0 units/L was obtained (normal value 1.2 to 7.6). The development of myositis was accompanied by severe muscle pain and weakness. The patient was unable to raise his legs off the bed on the fifth hospital day. On the seventh hospital day, treatment with intravenous hydrocortisone sodium succinate 100 mg IV followed by prednisone at 40 mg po bid was begun. The patient's myositis rapidly improved with CPK levels dropping to 544 u after four days of steroids. No muscle pain was left after the fifth day of steroids, and the patient gradually recovered muscle strength.

The most dramatic aspect of this patient's case was the sudden development on day five of acute renal failure. The urine had been tested daily for myoglobin and repeatedly was found to be negative. On the fifth day of hospitalization, the patient was found to have a 20 lb weight gain. The sodium level abruptly dropped to 113 mEq/L, BUN increased to 47 mg/dl, creatinine increased to 54. mEq/dl, potassium increased to 5.4 meq/L, and bicarbonate dropped to 18 meEq/L.

Aggressive repletion of the sodium in this patient was crucial due to the history of seizure activity. Both sodium bicarbonate tablets and sodium chloride tablets were given to replete the total body sodium in this patient. Emergency hemodialysis was necessary on day seven due to persistent hyperkalemia (a level of 7.7 mEq/L was found) along with acute ST interval prolongation up to .48s. Sodium polystyrene was given prior to hemodialysis. Only one hemodialysis was necessary because by day nine, the renal function began to return subsequent to steroid treatment. The creatinine decreased to normal by discharge.

Because of the history of heart murmur, the patient had undergone an echocardiogram seven weeks prior to admission revealing a normal appearance of the aortic valves although there was aortic regurgitation. The echocardiogram, as previously stated, was repeated on admission to rule out the possibility of endocarditis as the source of fever. The echocar-

diogram on admission revealed the suggestive findings of a vegetation. Based on this, a total of 80cc of blood was cultured and revealed no evidence of bacteremia. Two weeks after the patient's admission, a third echocardiogram was performed and did indeed reveal shrinkage of the thickening on the aortic valve, in apparent response to the systemic corticosteriods.

The patient was discharged on the seventeenth hospital day in good condition with a diagnosis of phenytoin hypersensitivity reaction. His myositis had resolved with the recovery of his motor strength through physical therapy to the point of walking with a cane. The renal failure, hepatitis, and dermatitis all had resolved with high dose corticosteroids. He was discharged on prednisone 40mg/day and carbamazepine 200 mg/3X/day.

Discussion

This case illustrates the possible severity and complexity of the potential effects of hypersensitivity reactions. Phenytoin is often used to treat seizure disorders, and its frequency of use has allowed thorough examination of its complications. A previous report by Michael and Mitch[5] served as a useful adjunct in the successful treatment of this particular patient. He exhibited many of the same manifestations of phenytoin hypersensitivity plus the addition of an apparent endocarditis due to acute endocarditic valvular inflammation secondary to the hypersensitivity reaction. The echocardiographic image of a normal-appearing valve just seven weeks prior to admission for drug reaction served as a strong indicator that the valvular "vegetation" and thickening found during the patient's admission was likely due to the proximate, severe hypersensitivity reaction.

The twelve blood cultures that were negative for fourteen days and his improvement with corticosteroid treatment are convincing. This endocarditic syndrome is consistent with a nonbacterial thrombotic endocarditic episode. There also is description in the literature of a syndrome called Libman-Sacks endocarditis (which occurs primarily in systemic lupus erythematosus) and also of the syndrome seen in scleroderma where endocarditis is thought to be induced due to immune system involvement of the endocardium, just as we believe this hypersensitivity reaction caused in this patient.[6] We expect that a follow up echocardiogram performed on this patient will reveal complete resolution of the echocardiographic findings.

We believe the severity of this patient's drug reaction serves as a reminder of potential complications induced by medical intervention. It is important to discuss with the patient the potential complications involved in treatments and the sentinal signs of potential trouble.

References

1. Hyman, LR, Ballow M, Knieser MR. Diphenylhydantoin interstitial nephritis: Roles of cellular and humoral immunologic injury. J Pediatr 1978;92:915-20.
2. Kleckner HB, Yakulis V, Heller P. Letter: Severe hypersensitivity to diphenylhydantoin with circulating antibodies to the drug. Ann Intern Med 1975;83:522-23.
3. Haruda F: Phenytoin hypersensitivity: 38 cases. Neurology 1979;29:1480-85.
4. Powers NG, Carson SH: Idiosyncratic reactions to phenytoin. Clin Pediatr 1985;26:120-24.
5. Michael JR, Mitch WE: Reversible renal failure and myositis caused by phenytoin hypersensitivity. JAMA 1976;236:2773-75.
6. Feigenbaum H. Echocardiography, 4th ed. Philadelphia: Lea and Febiger, 1987. ■

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Case Report: Ataxic Hemiparesis - Localization by MRI

Morton D. Kramer MD and Dean S. Tippett MD

Dr. Kramer is Chief of the Department of Neurology, St. Agnes Hospital, Baltimore, and Dr. Tippett is a member of the Department of Neurology, University of Maryland School of Medicine and Medical System, Baltimore.

Ataxic hemiparesis is a recognized lacunar syndrome that has been demonstrated previously by neuropathologic examination and computed tomography. In a subgroup of ataxic hemiparesis, pontine lesions have been localized by magnetic resonance imaging.

In 1965, Fisher and Cole first described a syndrome of moderate hemiparesis and ipsilateral "severe cerebellar-like ataxia" occurring in fourteen patients.[1] Neuropathological examination was performed in only one case and was obscured by multiple lesions. Based on this examination, the causative lesion was placed in the upper part of the posterior limb of the internal capsule, although other sites, including the pons, were considered. In 1978, Fisher designated the syndrome "ataxic hemiparesis" and presented three cases that showed contralateral upper basis pontis lesions by pathologic examination.[2] Since then lesions involving the pons, midbrain, posterior limb of the internal capsule, and the corona radiata have been identified both pathologically and by computed tomography (CT) as producing this syndrome.[3-14]

The pontine lesion results from occlusion of one of the paramedian branches of the basilar artery. These arteries supply the medial pontine region comprised of pontine nuclei, corticospinal, corticopontine, and corticobulbar fibers. Ataxia is believed to result from injury to the pontine nuclei.[15] In 1987, Nabatame and his colleagues first utilized magnetic resonance imaging (MRI) to localize lesions in pontine ataxic hemiparesis and described isointensity bands in the pons suggesting differential susceptibility to ischemia.[16] The posterior limb of the internal capsule is supplied by the anterior choroidal artery and striate arteries, arising from the anterior circulation.[15] Ataxia from a lesion here is explained by the abundance of corticopontine fibers grouped in the posterior limb of the internal capsule.[17] The midbrain and corona radiata lesions also are thought to disrupt descending corticopontine fibers.[4,10]

Therefore, the syndrome of ataxic hemiparesis can result from lesions in the anterior circulation (branches from the middle cerebral artery) or the posterior circulation (paramedian branch of the basilar artery).

In many cases, an anatomic localization is not made despite neurodiagnostic studies. CT is positive in the evaluation of lacunar

strokes in only 34.7 percent of the cases.[18] Attempts to place lesions by associated findings (that is, nystagmus associated with a pontine lesion and sensory deficit associated with an internal capsule lesion) are unreliable.[11,14]

Clinical findings of ataxic hemiparesis often have been considered a single syndrome. Recently, the natural history of lacunar infarction, including ataxic hemiparesis, was reported. However, a distinction was not made by anatomic location.[18] The natural history of pontine ataxic hemiparesis versus internal capsule ataxic hemiparesis has never been compared primarily because of the inability to localize the lesion consistently.

Case Report

A 50-year-old right-handed normotensive physician had a sudden onset of left sided weakness and difficulty walking while he was making hospital rounds. He noted difficulty controlling his left leg, and a feeling of numbness, "tightness," and mild weakness in this extremity. Approximately two hours later, he noted similar symptoms to a lesser degree involving his left arm. The following morning, his symptoms had not changed and he sought neurologic consultation.

Physical examination revealed blood pressure of 140/100 mm Hg; 80/min; regular, normal respiratory rate; and normal temperature. Blood pressure in five minutes was 140/90 mm Hg. General physical examination was unremarkable. Carotids were full and without bruits. Lungs were clear, and cardiac exam revealed regular rate and rhythm without murmur. The patient was alert. Cognitive function and speech/language were normal. Cranial nerves were normal. No nystagmus was present. Motor exam revealed slight downward pronator drift with a positive digitiquinti sign on the left. Quantitative motor exam did not show significant left side weakness. No sensory changes were noted to pin, light touch, vibration, or proprioception. He had mild left-sided dysmetria on finger-to-nose and heel-to-shin testing. Deep tendon reflexes were slightly increased in the left upper and lower extremities. Although the Babinski sign was not present, the left great toe did not plantar flex as strongly as the right. Gait was unsteady, and he favored his left leg.

Routine chemistry, hematology, and serology studies were normal. Electrocardiogram and chest radiograph were normal. Head CT on admission with and without contrast failed to show a lesion (Figure 1). An electroencephalogram (EEG) showed no focal damage. MRI scan of the brain was obtained on the third hospital day and revealed a focus of high signal intensity measuring approximately 7 mm in the anteroposterior extent involving the posterior limb of the right internal capsule (Figure 2). The lesion was

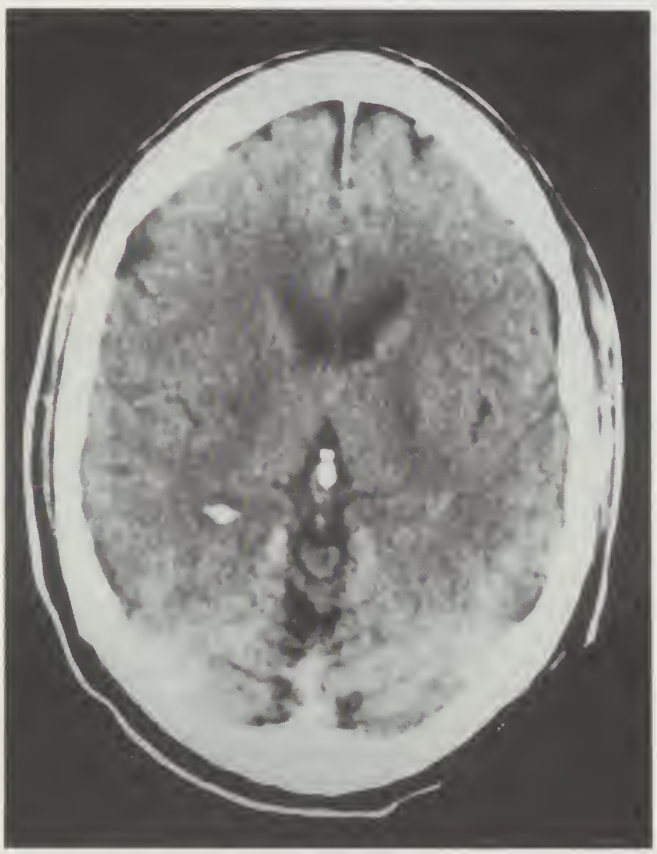


Figure 1. Computed tomography scan (day of admission): normal scan

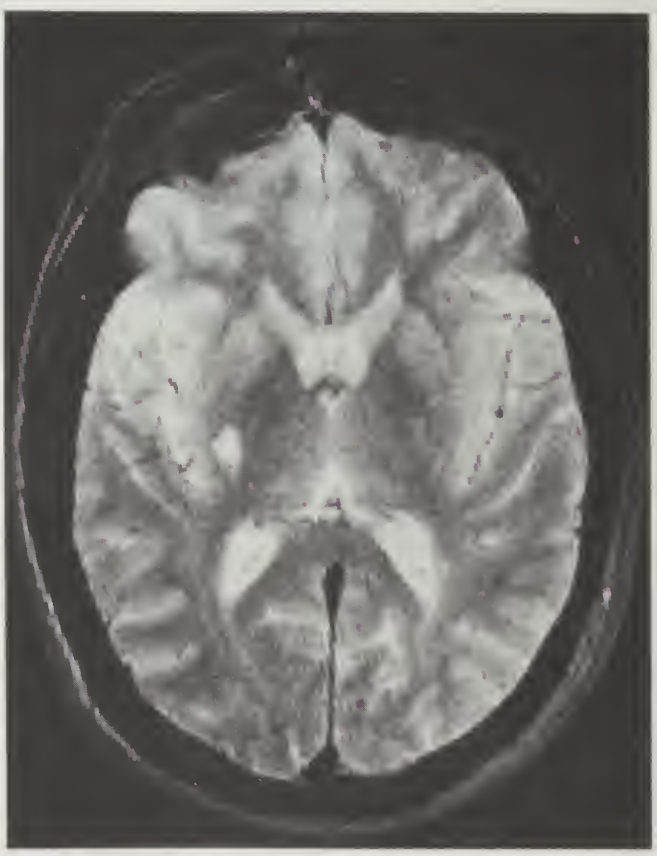


Figure 2. Magnetic resonance image (third hospital day): 7 mm nonhemorrhagic infarct involving the posterior limb of the right internal capsule

consistent with a nonhemorrhagic infarct. A 24-hour Holter monitor recording was normal. A carotid duplex study showed a questionable soft plaque on the posterior wall of the right internal carotid artery, but there was no evidence of an ulcerating lesion. Carotid arteriogram was normal.

Five days after admission, there was no focal weakness and minimal ataxia in both the left upper and lower extremities. Deep tendon reflexes remained slightly increased on the left side, but there were no pathologic reflexes. The patient returned to work part-time one week after admission and within two weeks resumed full-time activity. Two weeks after the onset of symptoms he reported total resolution of the left arm weakness but continued to complain of feeling "not confident" about his left leg, while walking and numbness in his left arm and leg that could not be demonstrated by testing. On reexamination there was no pronator drift and no demonstrable weakness. There was slight persistent ataxia on left heel to shin testing. Left deep tendon reflexes were still increased. There was sustained left ankle clonus, and he continued to favor his left leg when he walked.



Figure 3. Computed tomography scan (16 days after onset of symptoms): normal scan

A repeat head CT scan without contrast was performed sixteen days following the onset of symptoms and was again within normal limits (Figure 3).

Conclusion

In this patient with the lacunar syndrome of ataxic hemiparesis, both the initial and a sixteen-day followup CT scan were normal. MRI scan on the third hospital day revealed the site of the lesion as well as dimension and type. The value of MRI has been reported in pontine ataxic hemiparesis.[16] In this case, its usefulness is demonstrated in the localization of the other major lesion site of the ataxic hemiparesis lacunar syndrome, the posterior limb of the internal capsule.

References

1. Fisher CM, Cole M. Homolateral ataxia and crural paresis A vascular syndrome. J Neurol Neurosurg Psychiatry 1965;28:48-55.
2. Fisher CM. Ataxic hemiparesis: A pathologic study. Arch Neurol 1978;35:126-28.
3. Perman GP, Racy A. Homolateral ataxia and crural paresis: Case report. Neurology 1980;30:1013-1015.
4. Bendheim PE, Berg BO. Ataxic hemiparesis from a midbrain mass. Ann Neurol 1981;9:405-406.
5. Sakai T. Murakami S, Ito K. Ataxic hemiparesis with trigeminal weakness. Neurology 1981;31:635-36.
6. Radhakrishnan K, Malhotra AK, Shridharan R et al. Ataxic hemiparesis. Clinical, electrophysiologic, radiologic and pathologic observations. Clin Neurol Neurosurg 1982;84:91-100.
7. Iragui VJ, McCutchen CB. Capsular ataxic hemiparesis. Arch Neurol 1982;39:528-29.
8. Ichikawa K, Tsutsumishita A, Fujioka A. Capsular ataxic hemiparesis: A case report. Arch Neurol 1982;39:585-86.
9. Jokelainen M, Pilke A. Ataxic hemiparesis (letter). Arch Neurol 1983;40:326.
10. Sage JI, Lepore FE. Ataxic hemiparesis from lesions of the corona radiata. Arch Neurol 1983;40:449-50.
11. Huang CY, Lui FS. Ataxic hemiparesis, localization and clinical features. Stroke 1984;15:363-66.
12. Bogousslavsky J, Regli F, Ghika J et al. Painful ataxic hemiparesis. Arch Neurol 1984;41:892-93.
13. Mori E, Yamadori A, Kudo Y et al. Ataxic hemiparesis from small capsular hemorrhage: Computed tomography and somatosensory evoked potentials. Arch Neurol 1984;41:1050-1053.
14. Schleimer J, Galasko D, Stern BJ et al. Ataxic hemiparesis with intact sensory modalities (letter). Arch Neurol 1986;43:8.
15. Carpenter MB. Blood supply of the central nervous system. In Tracy TM, ed. Core Text of Neuroanatomy. Baltimore: Williams and Wilkens, 1985:402-409.
16. Nabatame H, Fukuyama H, Akiguchi I et al. Pontine ataxic hemiparesis studied by a high-resolution magnetic resonance imaging system. Ann Neurol 1987;21:204-207.
17. Carpenter MB. The diencephalon. In Tracy TM, ed. Core Text of Neuroanatomy. Baltimore: Williams and Wilkens, 1985:253-54.
18. Bamford J, Sandercock P, Jones L et al. The natural history of lacunar infarction: The oxfordshire community stroke project. Stroke 1987;18:545-51.

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Hospital Donation of Eye Tissue: The Physician's Vital Role

Richard M. Susel MD, FACS

Dr. Susel is Chief of Ophthalmology, St. Agnes Hospital, Baltimore. From 1983 to 1987 he was the Medical Director and Chairman of the Medical Advisory Board of the Medical Eye Bank of Maryland.

Whoever deals directly with the next of kin in soliciting tissue donations, the physician's identification of potential donor families is at the heart of a successful hospital tissue recovery program.

Corneal transplantation is the most frequently performed human transplant procedure in the United States. Under certain conditions, this surgery is more than 90 percent successful in restoring sight to patients who are blind or suffer severe loss of vision due to injury, infection, inherited or congenital conditions, corneal diseases, chemical burns, and other kinds of corneal trauma. In the last 28 years, more than 300,000 corneal transplants have been performed on men, women, and children ranging in age from 9 days to 103 years.[1]

The Medical Eye Bank of Maryland is the single largest source of surgical quality corneas in the state. Last year alone the Eye Bank recovered, processed, and distributed tissue for more than 2,000 corneal transplants. Founded in 1962 with a grant from the American Legion, the Eye Bank is a nonprofit agency that depends upon public donation for sufficient eye tissue to distribute to area surgeons. In addition to providing corneas for transplant surgery, the Eye Bank also supplies eye tissue to physicians and researchers engaged in a variety of projects investigating the causes and potential cures of all types of human blindness.

Tissue is secured in two basic ways. Maryland is one of 12 states with a Medical Examiner's Law that permits the recovery of tissue with the presumed consent of the decedents next of kin. The other important source of tissue is hospitals.

In the hospital situation, tissue recovery depends on the cooperation of a number of disciplines including physicians, nurses, and administrative and support personnel. Maryland, like other states, operates under federal Required Request legislation that mandates all hospitals to offer next of kin the opportunity to donate tissue and organs. Although all hospitals must comply with the Required Request laws, the protocol used varies with individual hospitals. In fact, the Medical Eye Bank of Maryland can design a program that meets each institution's unique needs so there is virtually no disruption of hospital routine.

St. Agnes Hospital has a long history of commitment to recovering donor eyes. Active since the Eye Bank's inception in 1962, St. Agnes has provided the Eye Bank with 868 eyes from 434 donors

since 1983 alone. In this time the hospital has reaped benefits from the program that accrue to physicians, nursing staff, and donor families as well as to eye tissue recipients.

Eye tissue should be removed as soon as possible after death, and at St. Agnes the admission department phones the Eye Bank at *every* death, maximizing opportunities for tissue recovery. Anyone can be an eye donor regardless of age, race, quality of vision, medical history, or cause of death. At St. Agnes, it is the medical residents who approach next of kin to request donor tissue. The Eye Bank conducts on-going inservice programs to assist medical residents in refining their approach to donor families and increasing their comfort level in this sensitive situation. The most successful are committed to the intrinsic value of tissue recovery and transplantation and view approaching next of kin as an extension of patient and family care and support during a most difficult time. They recognize the solace that tissue donation may give surviving family members. Altruism has been established as a major reason for donation, but a recent study also indicated that a strong motivating factor relates to mitigating the death of the family member.[2] Making sense of what is sometimes senseless death is consolation for many survivors, as is the belief that tissue donation is a legacy that represents the deceased positively after death. Similarly, the act of presenting the opportunity to donate also helps the medical staff deal with patient loss.

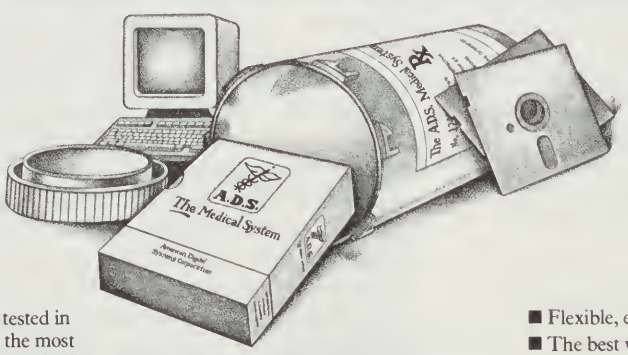
It is true that some physicians are more comfortable than others in approaching potential donor families. All physicians, however, can play the most vital role in tissue recovery by identifying potential donors to the Eye Bank. Where physicians, for a variety of reasons, are reluctant to approach donor families, the Eye Bank uses its own well-trained personnel to make the approach by phone or in person. Nurses are also excellent advocates of tissue recovery programs and, in many cases, secure permission for donation.

Finally, the physician by his/her position of influence within the hospital community can establish an atmosphere conductive to tissue recovery. The physician who appreciates the value of tissue donation, the way in which corneal transplant surgery can transform lives and can change darkness to light, will encourage tissue recovery within the hospital and strong cooperative programs with the Eye Bank.

References

1. Eye Bank Association of America. Questions Most Frequently Asked About Eye Donation and Corneal Transplantation. Washington, DC; 1989.
2. Prottas JM. Encouraging altruism: Public attitudes and the marketing of organ donation. Milbank, Health and Society 1983;283-88.

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Findings of Fact
Conclusions of Law, and Order

Jerome H. Begun (Applicant) applied for a license to practice medicine in Maryland by application dated July 21, 1988. After investigating Applicant's fitness to practice medicine in Maryland and determining whether Applicant met the qualifications to be licensed in Maryland, the Maryland Board of Physician Quality Assurance (the Board) voted to initially deny Applicant's application. By charging documents dated June 26, 1989, the Board issued its Notice of Intent to Deny Application for Licensure. Specifically, the Board charged that Applicant could be denied a license in Maryland because Applicant lacked good moral character, one of the prerequisites to licensure in Md. Health Occ. Code Ann. (H.O.) §14-305(b)[1] (1988 Cum. Supp.). Additionally the Board charged pursuant to H.O. §14-205(a)(1)(iii) that Applicant was disciplined by a licensing or disciplinary authority or convicted or disciplined by a court of any state ... for an act that would be grounds for disciplinary action under this section. H.O. §14-504(a)(21).[2] The grounds under §14-504 which the Board charged were applicable were

> Fraudulently or deceptively obtains or attempts to obtain a license for the applicant. H.O. §14-504()(1).[3]
> Is guilty of .... unprofessional conduct in the practice of medicine. H.O. §14-504(a)(3).[4]
> ... (I)s convicted of or pleads guilty or nolo contendere with respect to a crime involving moral turpitude. H.O. §14-504(b).[5]

A hearing was held before a hearing officer on November 1, 1989. Present at the hearing were: Debra G. Woodruff, Assistant Attorney General, Administrative Prosecutor. Although John Wheeler Glenn, Esquire, had previously entered his appearance in the case, he was not present. Mr. Glenn was contacted by telephone and related that his office had made numerous attempts both by telephone and by mail to contact the Respondent, all of them unsuccessful. Mr. Glenn entered his appearance at the hearing by telephone for the limited purpose of reading into the record his attempts to contact his client. Mr. Glenn subsequently wrote a letter to the Hearing Officer requesting that his appearance be stricken in view of the complete failure of cooperation of his client. The case was heard after the Hearing Officer determined that the Respondent was given proper notice of the date of the hearing and had been notified that the hearing could be held *ex parte* pursuant to H.O. §14-505.

At the hearing the State introduced the following documentary evidence. No witnesses testified for the State.

Summary of Evidence

State Exhibit 1: California Indictment and related Papers, Criminal Number CR 70-44, United States District Court for the Northern District of California, consisting of thirty-six (36) pages.
State Exhibit 2: California Medical Board Decision Number D-1297 consisting of seven (7) pages.
State Exhibit 3: Medical Licensing Board of Indiana Decision, dated January 23, 1980 consisting of eight (8) pages.
State Exhibit 4: State of Ohio Medical Board Final Order, dated May 21, 1980 and related papers consisting of thirteen (13) pages.
State Exhibit 5: United States District Court for the Eastern District of California, Criminal Docket Number Cr. S-80-162, consisting of twenty (20) pages.
State Exhibit 6: State of California Medical Quality Board Decision Not To Reinstate Petitioner's Revoked Certificate, Number OAH N-30840, consisting of ten (10) pages.
State Exhibit 7: Applicant's Application to the State of Maryland dated, July 21, 1988 and related papers, consisting of forty-three (43) pages.
State Exhibit 8: Board of Physician Quality Assurance (the Board) Notice of Intent to Deny Application for Licensure, dated June 26, 1989 with related papers, consisting of eight (8) pages.
State Exhibit 9: Return Receipt indicating delivery of Notice of Intent to Deny as June 28, 1989, consisting of two (2) pages.
State Exhibit 10: Applicant's Letter of Delay, dated July 24, 1989, with address of P.O. Box 355, Cambridge, Ohio 43725, consisting of one (1) page.
State Exhibit 11: Entry of Appearance of John Wheeler Glenn, Esquire, dated August 10, 1989 consisting of one (1) page, and agreeing to the date of November 1, 1989 for a hearing.

By letter dated November 28, 1989, the Hearing Officer forwarded to the Applicant and the State the

1. The requirement of being of "good moral character" has been a continuing requirement of licensure. *See* Article 43 §124 Annotated Code of Maryland 1964; Article 43, §123(b) Annotated Code of Maryland 1980. Repealed by Acts 1981, chapter 8 § 8, effective July 1, 1981 without substantive change to §14-305(b), Health Occupations Article Annotated Code of Maryland 1981.

2. The chapter laws of 1981 enacted §14-205(a)(2) "Subject to the Administrative Procedure Act deny a license to an applicant for any of the reasons that are grounds for disciplinary action under §14-504 of this title." The revisor's note states that the "new language [is] added to state expressly a power that formerly was only implied - that the Board may deny a license on the grounds listed in §14-504 of this title." Health Occupations §14-205 Revisor's Note, Annotated Code of Maryland 1981. H.O. §14-504(a)(21) had formerly been Article 43, §130(h)(19) and became H.O. §504(22) by the 1981 amendments. *See* Maryland Annotated code 1980.

3. Prior to the Amendment of Health Occupations Article, Medical Practice Act in July of 1988 this section had been H.O. §14-504(6). The Chapter Laws of 1988 derived this language without substantive change from Article 43 §130(h) Annotated Code of Maryland 1980. *See* Article 43 §145, Annotated Code of Maryland 1957.

4. "Unprofessional conduct" was added by 1988 amendments.

5. Prior to the 1988 amendments this section was H.O. §14-504(6). This section had been derived without substantive change from Article 43, §130(h) Annotated Code 1980; *See* Article 43, §145, Annotated Code 1957.

Proposed Decision in this case which contained Proposed Findings of Fact, Proposed Conclusion of Law, and a Recommendation. The Hearing Officer notified the Applicant and the State of the right to file exceptions with the Board and stated any exceptions should be filed within twenty-one (21) days of receipt of the Proposed Decision.[6] By letter dated February 20, 1990, the Board notified the Applicant and the State that it had received no exceptions. The parties were notified that the case would be scheduled for Board action on Wednesday, February 28, 1990.[7]

On Wednesday, February 28, 1990 the Board considered the Proposed Decision, and by both a preponderance of evidence and convincing evidence on the affirmative vote of a majority of the full authorized membership of the Board issued the following Final Decision and Order.

Findings of Fact

1. The United States District Court for the Northern District of California convicted Applicant of seven (7) narcotics counts involving illegal sales of drugs and five (5) counts of illegal possession of unregistered firearms and sentenced him to seven years of imprisonment on September 3, 1970. Specifically Applicant was found guilty of

a. 26 U.S.C. 4705 (a)—on or about November 11, 1969, knowingly and willfully unlawfully sell, barter, exchange and give away to a Federal Agent of the Bureau of Narcotics and Dangerous Drugs, a narcotic drug, to wit, approximately three hundred forty five (345) tablets containing morphine sulfate, not in pursuance of a written order from that Agent on a form issued in blank for that purpose by the Secretary of the Treasure or his delegate as required by the laws of the United States.

b. 26 U.S.C. 4705(a)—On or about November 24, 1969, knowingly and willfully unlawfully sell, barter, exchange and give away to a Federal Agent of the Bureau of Narcotics and Dangerous Drugs, a narcotic drug, to wit, approximately fifty (50) tablets containing morphine sulfate, not in pursuance of a written order from that Agent on a form issued in blank for that purpose by the Secretary of the Treasury or his delegate, as required by the laws of the United States.

c. 21 U.S.C. 331(q)(2)—On or about December 10, 1969, knowingly unlawfully sell, deliver, and dispose of a drug, to wit, approximately eight thousand (8,000) tablets containing dextro amphetamine sulfate, a depressant or stimulant drug within the meaning of 21 U.S.C. Section 321(v)(2) to a Federal Agent of the Bureau of Narcotics and Dangerous Drugs.

d. 26 U.S.C. 4705(a)—On or about January 6, 1970, knowingly and willfully unlawfully sell, barter, exchange and give away to a Federal Agent of the Bureau of Narcotics and Dangerous Drugs, a narcotic drug, to wit, two hundred (200) tablets containing Dolophine, not in pursuance of a written order from that Agent on a form issued in blank for that purpose by the Secretary of the Treasury or his delegate, as required by the laws of the United States.

e. 21 U.S.C. 331(q)(2)—On or about January 6, 1970, knowingly unlawfully sell, deliver, and dispose of a drug, to wit approximately ten thousand (10,000) tablets containing dextro amphetamine sulfate a depressant or stimulant drug within the meaning of 21 U.S.C. Section 321(v)(2) to a Federal Agent of the Bureau of Narcotics and Dangerous Drugs.

f. 26 U.S.C. 4705(a)—On or about January 7, 1970, knowingly and willfully unlawfully sell, barter, exchange and give away to a Federal Agent of the Bureau of Narcotics and Dangerous Drugs, a narcotic drug, to wit, approximately one thousand (1,000) tablets containing Dolophine, not in pursuance of a written order from that Agent on a form issued in blank for that purpose by the Secretary of the Treasury or his delegate, as required by the laws of the United States.

g. 26 U.S.C. 4705(a)—On or about January 7, 1970, knowingly and willfully unlawfully sell, barter, exchange and give away to a Federal Agent of the Bureau of Narcotics and Dangerous Drugs, a narcotic drug, to wit, approximately one thousand (1,000) tablets containing Dilaudid, not in pursuance of a written order from that Agent on a form issued in blank for that purpose by the Secretary of the Treasury or his delegate, as required by the laws of the United States.

h. 26 U.S.C. 5861(d)—On or about January 7, 1970, did unlawfully possess a firearm, within the meaning of 26 U.S.C., Section 5845, to wit: one Schmeisser MP 40 9 mm machine gun, serial number 4070, which was not then registered to the defendant in the National Firearms Registration and Transfer Record.

i. 26 U.S.C. 5861(d)—On or about January 7, 1970, did unlawfully possess a firearm, within the meaning of 26 U.S.C., Section 5845, to wit: one Luger, Model 1917, 9mm short barrel rifle, having a barrel length of 7 13/16 inches with wooden shoulder stock, serial number 2114, which was not then registered to the defendant in the National Firearms Registration and Transfer Record.

j. 26 U.S.C. 5861(d)—On or about January 7, 1970, did unlawfully possess a firearm, within the meaning of 26 U.S.C., Section 5845, to wit: one Mauer 9 mm short barrel rifle, with wooden shoulder stock, having a barrel length of 5 1/2 inches, serial number 24452, which was not then registered to the defendant in the National Firearms Registration and Transfer Record.

k. 26 U.S.C. 5861(d)—On or about January 7, 1970, did unlawfully possess a firearm, within the meaning of 26 U.S.C., Section 5845, to wit: one Radom Model 35, 9 mm short barrel rifle, with wooden shoulder stock, having a barrel length of 4 21/32 inches, serial number 9607, which was not then registered to the defendant in the National Firearms Registration and Transfer Record.

l. 26 U.S.C. 5861(d)—On or about January 7, 1970, did unlawfully possess a firearm, within the meaning of 26 U.S.C., Section 5845, to wit: one Browning Model 35, 9 mm short barrel rifle, with wooden shoulder stock, having a barrel length of 4 3/4 inches, serial number 62978 which was not then registered to the defendant in the National Firearms Registration and Transfer Record.

2. 26 U.S.C. 4705(a), 26 U.S.C. 5861(d), and 21 U.S.C. 331(q)(2) are crimes involving moral turpitude.

3. On December 24, 1971, the Board of Medical Examiners of California revoked the Applicant's license to practice medicine because of the felony convictions set forth herein.

4. On January 30, 1980, the Medical Licensing Board of Indiana revoked the Applicant's license to practice in that State because the Applicant had falsely stated in his application that he had never been convicted of violating the Federal Anti-Narcotics Act or other federal or state laws.

5. On May 21, 1980, the State Medical Board of Ohio revoked the Applicant's license to practice in that state because the license was obtained as a result of fraud in the application.

6. The Proposed Decision and transmittal letter were sent to the Applicant at the address he had used on his letter of July 24, 1989.

7. The Board's letter were sent to the Applicant at the address he had used on his letter of July 24, 1989.

6. On September 10, 1981, the United States District Court for the Eastern District of California convicted the Applicant of conspiracy to defraud the United States by obtaining payment of false, fictitious, and fraudulent claims in the Civilian Health and Medical Program of the Uniform Services (CHAMPUS), a felony. Applicant was sentenced to two (2) years imprisonment with all but six (6) months thereof suspended and five (5) years probation. Specifically Applicant was found guilty in violation of 18 U.S.C. 286, Conspiracy as charged in Count 12 of a twenty (20) count indictment. The remaining counts were dismissed.

7. 18 U.S.C. 286 is a crime involving moral turpitude.

8. On March 21, 1988, the Board of Medical Quality Assurance for the State of California found that the Applicant had failed to establish that he had rehabilitated himself to the extent that restoration of his license to practice medicine would be warranted, and Applicant's petition for reinstatement was denied. On April 20, 1988, the stay of the execution of the decision was granted until May 20, 1988.

9. The United States District Court for the Northern District of California and the United States District Court for the Eastern District of California are not courts of a state, i.e., they are not state courts but courts of the United States government.

10. The Board of Medical Examiners of California, the Board of Medical Quality Assurance for the State of California, the State Medical Board of Ohio, and the Medical Licensing Board of Indiana are licensing and disciplinary authorities of the respective states.

11. Applicant was given proper notification of all proceedings before the Hearing Officer and the Board.

Conclusions of Law

Based on the foregoing Findings of Fact, the Board concludes as a matter of law that Applicant

> Lacks good moral character as is required by H.O. §14-305(b) as a prerequisite for licensure; and
> Committed the prohibited act of being
> ... (D)isciplined by a licensing or disciplinary authority ... for an act that would be grounds for disciplinary action under this section. Specifically:
> Fraudulently or deceptively obtains or attempts to obtain a license for the applicant; H.O. §14-504(a)(1) and
> ... (I)s convicted of or pleads guilty or nolo contendere with respect to a crime involving moral turpitude. H.O. §14-504(b).[8]

8. In reaching this result the Board notes that its conclusions of law are based on the actions taken by Indiana, Ohio, and California insofar as there were no facts introduced by the State supporting a conclusion of law that Applicant had been convicted by a court of any state. Further although the Hearing Officer suggested that Applicant was guilty of "unprofessional conduct in the practice of medicine" this ground for discipline was not effective until July 1, 1988, which was some time after the last of the actions taken by any state or United States Court. There is no retroactive application of this section.

The finding that Applicant lacks good moral character is based on the overwhelming evidence introduced by the State relating to fraudulent conduct and criminal activity. Applicant bore the burden of demonstrating that he had good moral character. There was no evidence introduced by Applicant as to his present character.

Order

Upon the foregoing Findings of Fact and Conclusions of Law, it is this 14th day of March 1990, by an affirmative vote of the majority of the full authorized membership of those members of the Board of Physician Quality Assurance of Maryland who considered this case,

ORDERED that Applicant's application for a license to practice medicine in the State of Maryland is DENIED; and be it further

ORDERED that this a final order.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

■ ■ ■

In the Matter of
Cynthia A. Brown MD
Before the
Maryland Board of
Physician Quality Assurance

February 23, 1990

Israel H. Weiner MD, Chair
Board of Physician Quality Assurance
Department of Health and Mental Hygiene
P.O. Box 2571
4201 Patterson Avenue
Baltimore, MD 21215-0002

Re: Surrender of License
Case No. 89-0298
License No. D26655

Dear Dr. Weiner and Members of the Board:

Please be advised that I have decided to surrender my license to practice medicine in Maryland. It is my understanding that I may apply for reinstatement of my license after I complete a training program approved by the Board, subject to the requirements set forth in Health Association Article, Section 14-315. Thus, my decision to surrender my license is REVOCABLE.

It is my understanding that this letter of surrender will be considered a public document on March 5, 1990.

On November 22, 1989, the Board charged me with a violation of Md. Health Occ. Code Ann. §14-504(a)(22) (1989 Cum. Supp.). Section 14-504(a) provides in pertinent part:

> Subject to the hearing provisions of §14-505 of this subtitle, the Board, on the affirmative vote of a majority of its full authorized membership, may reprimand any licensee, place any licensee on probation, or suspend or revoke a license if the licensee:
> (22) Fails to meet appropriate standards as determined by appropriate peer review for the delivery of quality medical

and surgical care performed in an outpatient surgical facility, office, hospital, or any other location in this State.

A settlement conference was held on January 3, 1990. As a result of negotiations with representatives of the Board present at the settlement conference, I agreed to surrender my license. Consequently, the hearing scheduled for January 25, 1990, was postponed.

I have not practiced medicine in Maryland since October 26, 1988. On December 14, 1988, I resigned from the staff at Sacred Heart Hospital in Cumberland, MD.

I hereby affirm that I do not have any hospital privileges in Maryland.

I am licensed to practice medicine in Texas (license number D8160). I acknowledge that on March 5, 1990, the Board will send a copy of this letter of surrender to G.V. Brindley, Jr., MD, Executive Director, Texas State Board of Medical Examiners, P.O. Box 13562, Capital Station, Austin, TX 78711.

I have applied for a license to practice medicine in the State of Washington. I acknowledge that on March 5, 1990, the Board will send a copy of this letter of surrender to Patti L. Rathbun, Executive Officer of the Board of Medical Examiners, Professional Licensing Division, Washington Department of Licensing, 1300 South Quince, Olympia, WA 98504.

I agree to sign DEA Form 104, Voluntary Surrender of Controlled Substances Privileges. I acknowledge that the Board will send my DEA Registration Certificate, DEA Form 104 and a copy of this letter of surrender to Robert Bickel, Group Supervisor, DEA, 31 Hopkins Plaza, Room 955, Baltimore, MD 21201.

I hereby affirm that I do not have any DEA order forms for Schedule I or II drugs.

I acknowledge that the Board will send my Maryland CDS Registration Certificate and a copy of this letter of surrender to Charles Tregoe, Chief, Division of Drug Control, 4201 Patterson Avenue, Baltimore, MD 21215.

Before the Board accepts this letter of surrender as a resolution of case number 89-0298, I must present to the Board the following:

1. Maryland License D26655, Renewal Certificate and wallet-size renewal card;
2. United States Drug Enforcement Administration Registration Certificate AB1152519 which permits me to prescribe controlled dangerous substances in Maryland, and DEA Form 104; and
3. Maryland Controlled Dangerous Substances registration Certificate M15813 issued by the Maryland Division of Drug Control.

Finally, I wish to make clear that I have consulted with an attorney before signing this letter SURRENDERING my license to practice medicine in Maryland. I understand both the nature of the charges against me and also this letter of surrender. I make this decision voluntarily and knowingly.

CYNTHIA A. BROWN MD

On behalf of the Board of Physician Quality Assurance, on this 12th day of March I accept Cynthia A. Brown MD's surrender of her license to practice medicine in Maryland.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

■ ■ ■

In the Matter of
Stanley D. Madison MD
Before the
Maryland Board of
Physician Quality Assurance

February 9, 1990

Israel H. Weiner MD, Chair
Board of Physician Quality Assurance
Department of Health and Mental Hygiene
P.O. Box 2571
4201 Patterson Avenue
Baltimore, MD 21215-0002

RE: Surrender of License
License Number D07094
Case Number: 89-0475

Dear Dr. Weiner and Members of the Board:

Please be advised that I agree to surrender my license to practice medicine in Maryland on February 28, 1990. I understand that I have the right to apply for reinstatement of my license to practice medicine in Maryland in five (5) years, but no sooner than February 28, 1995. This decision is PUBLIC and this letter of surrender will be considered a public document on March 5, 1990.

My decision to discontinue the practice of medicine has been prompted by my guilty plea in the *State of Maryland v. Stanley D. Madison*, Criminal Information #29000328, to the following charges:

(a) one count of Medicaid fraud in violation of Md. Ann. Code art. 27, §230C;
(b) one count of prescribing controlled drugs in violation of Md. Ann. Code arc. 27, §288(b); and
(c) one count of obstruction of justice in violation of Md. Ann. Code art. 27, §27.

My decision to surrender my license and discontinue the practice of medicine has been prompted by my desire to avoid being charged under the Maryland Medical Practice Act, Md. Health Occ. Code Ann. §14-504 (1989 Cum. Supp.). The basis for charges against me is the criminal case mentioned above.

One January 18, 1990, I received notice of the Board's vote on January 15, 1990, to summarily suspend my license pursuant to Md. State Gov't Code Ann. §10-405 and to charge me under Md. Health Occ. Code Ann.

§14-504(a)(28) and (b) (1989 Cum. Supp.).[1] After my attorney, Georgia Goslee, Esquire, informed me of the Board's actions, I agreed to do the following:

1. On January 18, 1990, at 3:00 p.m., I agree to discontinue writing prescriptions for controlled dangerous substances, effective immediately;

2. On January 19, 1990, at 11:00 a.m., in the presence of my attorney, I surrendered the following items to Charles F. Cichon, Case Manager and Investigator for the Board:

(a) Maryland license D07094 (issued 7/27/61);
(b) Maryland Renewal License D07094;
(c) Federal DEA Registration Certificate AM 2421092;
(d) All prescription pads; and
(e) All controlled substances.

3. I hereby affirm that I do not have any DEA order forms for Schedule I or II drugs.

4. I signed DEA Form 104, Voluntary Surrender of Controlled Substances Privileges on January 19, 1990. I acknowledge that the Board will send my DEA Registration Certificate, DEA Form 104 and a copy of this letter of surrender to Robert Bickel, Group Supervisor, DEA, 31 Hopkins Plaza, Room 955, Baltimore, MD 21201.

5. I acknowledge that the Board will send a copy of this letter of surrender to Charles Tregoe, Maryland Division of Drug Control, 4201 Patterson Avenue, Baltimore, MD 21215.

6. My Maryland CDS Certificate M19391 expired June 30, 1987. I hereby affirm that I have not renewed the CDS Certificate since it expired.

7. On January 19, 1990, I gave Ms. Goslee my license to practice medicine in Washington, DC (license #1224122) and my Washington, DC renewal certificate. I acknowledge that on March 6, 1990, the Board will send a copy of this letter of surrender to John P. Hopkins, Executive Director of the District of Columbia Board of Medicine, 605 G Street NW, Room 202 - Lower Level, Washington, DC 20001. Attached hereto is a copy of a letter from me to Mr. Hopkins surrendering my license to practice medicine in Washington, DC and my renewal certificate.

8. My license to practice medicine in Ohio (license #24490) expired December 31, 1986. I hereby affirm that I have not renewed my Ohio license since it expired. I acknowledge that the Board will send a copy of this letter of surrender to Ray Q. Bumgarner, Executive Director of the Ohio State Medical Board, 77 S. High St. 17th Floor, Columbus, OH 43266-0315.

9. I hereby affirm that I do not have any hospital privileges in Maryland, Ohio, or Washington, DC.

In executing this letter of surrender, I understand that I may apply for reinstatement of my license to practice medicine in Maryland, but no sooner than February 28, 1995. The surrender of my license is REVOCABLE, only to the extent that I may apply for reinstatement no sooner than five (5) years from February 28, 1990.

If I apply for reinstatement of my license, I acknowledge that I bear the burden to the Board that I am competent to practice medicine. The Board may require that I take either the National Boards, the Flex Examination, or the SPEX examination and/or be evaluated by the McMasters program in Canada or a similar program. I would bear the cost of any such evaluation. In other words I must demonstrate that I have the cognitive and clinical competence to practice medicine. Additionally, I must demonstrate that I have taken fifty (50) continuing education hours for each year I have not practiced. I understand that I must demonstrate to the Board's satisfaction that I possess good moral character as specified in Md. Health Occ. Code Ann. §14-305(b) (1989 Cum. Supp.).

Until the Board grants my request for reinstatement, I understand that I may not give medical advice to any individual, for compensation or otherwise, and cannot prescribe medication. In other words, I understand that the surrender of my license means that I am an unlicensed physician.

On January 24, 1990, my attorney and I attended the Board meeting and asked the Board to allow me to return to the practice of medicine for four (4) weeks to meet with my patients and dissolve my practice.

On January 25, 1990, my attorney notified me of the Board's decision about my request for the four (4) week extension.

It is my understanding that effective January 25, 1990, at 2 p.m., the Board reinstated my license to practice medicine in Maryland in order for me to dissolve my practice. This extension expires on February 28, 1990 at 6 p.m.

From January 25, 1990, until February 28, 1990, I understand that I cannot write prescriptions for any drugs. However, the Board will allow me to telephone a prescription to a pharmacy, except for controlled substances listed in Schedules I-V, for a patient whom I have treated previously.

Before the Board accepts this letter of surrender as a resolution of this matter, I must present to the Board a copy of the letter to my patients explaining that I am retiring from the practice of medicine giving them the name of the physician to whom I am turning over my practice, and the Medical and Chirurgical Faculty's

1. Section 14-504(a)(28) states: Subject to the hearing provisions of §14-505 of this subtitle, the Board, on the affirmative vote of a majority of its full authorized membership, may reprimand any licensee, place any licensee on probation, or suspend or revoke a licensee if the licensee sells, prescribes, gives away, or administers drugs for illegal or illegitimate medical purposes. Section 14-504(b) states

Subject to the Administrative Procedure Act, the Board shall order the suspension of a license if the licensee is convicted of or pleads guilty or nolo contendere with respect to a crime involving moral turpitude, whether or not any appeal or other proceeding is pending to have the conviction or plea set aside. After completion of the appellate process if the conviction has not been reversed or the plea has not been set aside with respect to a crime involving moral turpitude, the Board shall order the revocation of a license subject to the hearing provisions of §14-505 of this subtitle.

number 301-539-0872. This letter must tell the patients when they can pick up their medical file if they desire, and how they can transfer their files to another physician.

Finally, I wish to make clear that I have consulted with an attorney before signing this letter SURRENDERING my license to practice medicine in Maryland, subject to my right to apply for reinstatement of my license in Maryland no sooner than five (5) years from February 28, 1990, and to practice in any other jurisdiction, state, or country. I understand both the nature of the matters against me and also this letter of surrender fully. I make this decision voluntarily and knowingly.

STANLEY D. MADISON MD

On behalf of the Board of Physician Quality Assurance, on this 5th day of March 1990, I accept Stanley D. Madison MD's surrender of his license to practice medicine in Maryland.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance ■

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Josefina Emilia Dado Figueroa

Josefina Emilia Dado Figueroa (Josie) is the 1990-1991 President of the Auxiliary to the Medical and Chirurgical Faculty of Maryland. She is the second State President from Allegany County, the first being Mrs. Leslie Miles in 1973-1974.

Josie and her husband, Augusto, Jr. (Gus) came from the Philippines to the United States in 1965. Josie is a graduate of the University of the Philippines, School of Nursing. After graduation, she worked as an operating room nurse at the Veterans Memorial Hospital in the Philippines, at the Beth Israel Hospital in New York City in 1965-1966, and at the West Virginia University Medical Center as a member of the open heart and the neurosurgery teams from 1966-1970.

Dr. Figueroa is a Board Certified Neurosurgeon in private practice in Cumberland. He is the Regional Medical Consultant for the Rehabilitation Hospital of Altoona, Pennsylvania. Presently, he is the Vice President of the Association of the Philippine Neurological Surgeons in America and the Secretary/Treasurer of the Allegany County Medical Society.



Josie Figueroa

The Figueroas have three daughters. Marijoy, a 1986 graduate of the Johns Hopkins University School of Nursing, is married to David Keenan. She is working in the Neurology/Neurosurgery Critical Care Unit at Johns Hopkins Hospital. Mimi is a Senior (chemistry major) at Loyola College in Baltimore, and Gini is premed student at Frostburg State University.

Josie has been active in the Allegany County Medical Auxiliary since 1973, having served as Recording Secretary, Treasurer, Chairman of various committees, and as County President in 1982-1983.

In the State Medical Auxiliary, she served as Recording Secretary, Corresponding Secretary, Second Vice-President and First Vice-President. She also served two years as Historian in 1984-1986 and was Editor of the *Hygeia Filiae* in 1988-1989. As President-elect, she was the chairman of the Membership-Foreign Born Spouses committee and represented the State President in various functions.

"Teamwork for Better Image" is her theme for the year 1990-1991. She will emphasize teamwork not only within the Auxiliary but also with the Medical Society to improve the public image of the medical community. One of her goals is to encourage the component Auxiliaries to assess the health needs in their communities and work with the Medical Society in supporting on-going or developing new health-related programs.

A membership campaign to educate current and potential members about the importance of federated membership (county, state, national) will be promoted this year. She is planning to invite a national representative to speak on "Federated Membership" at the fall House of Delegates Meeting.

The Auxiliary will be continuing its concerted efforts in promoting legislative matters pertaining to medicine and in sponsoring activities such as the Auxiliary Day in Annapolis to strengthen our relationship with the Legislators.

Josie is a member of the Cumberland Memorial Hospital Auxiliary, the Association of the Philippine Physicians of Maryland Auxiliary, the Auxiliary to the International College of Surgeons, the American Association of Neurological Surgeons Auxiliary, and the Auxiliary to the Congress of Neurological Surgeons.

She enthusiastically commented, "I am confident that with teamwork, you and I will be able to meet the challenges of the coming year." ■

MRI UPDATE



Figure 1

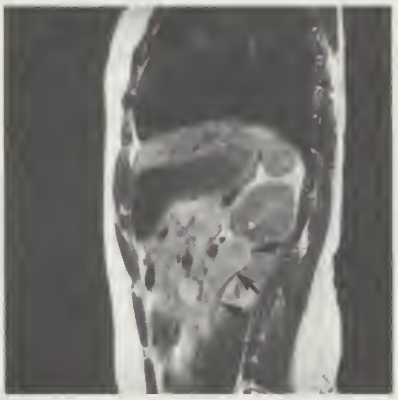


Figure 2



Figure 3

CLINICAL HISTORY: This is a 25-year-old female with complaints of left sided flank pain, nausea, and vomiting.

FINDINGS: Figure 1 represents a coronal T1-weighted image through the kidneys. A lobulated soft tissue mass conforming to the approximate shape of the left renal pelvis and the lower pole collecting system can be identified (large arrow). Signal intensity is intermediate and there is a central area of decreased signal intensity probably representing necrosis. Figure 2 is a sagittal image through the left kidney. In this projection, the soft tissue mass is comma shaped and can be identified extending from the left renal pelvis into the proximal left ureter (small arrows). Figure 3 is a T2-weighted image which exhibits increased signal intensity in the periphery of the mass and central decreased signal intensity. A curvilinear low signal structure lies medial to the mass and is felt to represent the left renal vein displaced by the mass. The vein appears to be patent as evidenced by the low signal intensity indicative of flowing blood (small arrows). No adenopathy is identified. There is no evidence of extension of the mass beyond the margins of the left renal pelvis or the proximal left ureter.

MR IMPRESSION: The location and shape of the soft tissue mass is typical for a transitional cell carcinoma.

MR NOTES: MR of the kidneys is a noninvasive procedure yielding both static and dynamic information about the pathologic process in question. In this case, the MR images defined the presence of the soft tissue mass in the left kidney, the confinement of the soft tissue mass to the left renal collecting system and the proximal left ureter, and the lack of invasion into the kidney and the adjacent pararenal soft tissue structures. In addition, the MR scan demonstrated that there is no evidence of thrombosis of the left renal vein nor is there evidence of tumor into the vein. MR imaging of the kidney is a noninvasive procedure allowing both anatomic identification of renal masses, staging of the extent of those renal masses, and determination of the presence or absence of renal vein involvement for surgical planning.

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Adjuvant Therapy in Melanoma Part II: Active Specific Immunotherapy

The main thrust of immunotherapy is the administration of the vaccine in a disease-free environment. The recipient of the vaccine should be immunocompetent to respond to the immune stimulus. Furthermore, immunotherapy is very specific, and there is no general vaccination to protect against all elements.

Most patients who have no widespread metastatic melanoma have intact immune function, evidenced by skin-test reactivity to a variety of standard recall antigens. They are also capable of mounting delayed hypersensitivity reactions to chemical allergens, bacterial and fungal antigens, and *in vitro* to mitogenic stimulations. Therefore, most of them are good candidates for active immunotherapy.

Several approaches of tumor-specific active immunotherapy have been tried:

1. *Soluble polyvalent melanoma antigen vaccine* These soluble antigens were obtained from material shed by a pool of selected allogenic human melanoma cell lines. This was administered intradermally with and without alum as adjuvant. Such a vaccine augmented immunity to melanoma in few patients.[1]

2. *Banked melanoma cells membrane preparations* Partially purified tumor-associated antigens (TAA) were mixed with complete Fruend adjuvant and administered intradermally with some beneficial effects.[2]

3. *Viral lysate of melanoma cells* In an attempt to increase the immune responses to presumably weak tumor-associated antigens, the melanoma cells were superinfected with nonpathogenic oncolytic viruses such as Newcastle disease virus. The utilization of such viral lysates is believed to amplify the immune responses to tumor antigens.[3]

4. *Whole melanoma cell preparations* Some investigators utilize the whole tumor cell in vaccine preparations. It is believed to be more antigenic. It has been noted that only live tumor cells are antigenic and that repeated freezing and thawing results in tumor cell death and loss of its antigenicity. Several approaches have been used to intensify tumor cell antigenicity and to attenuate the cells and prevent them from going into mitosis:

   a. *Neuraminidase-treated melanoma cells* Neuraminidase is an enzyme that strips some of the lipoproteins (neuraminic acid) off the cell membrane, exposing the antigens that can be easily recognized by the immune surveillance. It can be complexed by attaching adjuvants to it for even better recognition. Neuraminidase treated allogenic melanoma cells + BCG repeatedly injected subcutaneously did not appear to have a significant affect in one study[4] and very encouraging results in another study from Duke University.[5]

   b. *Irradiated melanoma cells* Vaccination with irradiated allogenic melanoma cells, alone or in combination with BCG, has received very limited attention. Subcutaneous injection of irradiated allogenic melanoma cells + BCG with intravenous administration of DTIC showed no beneficial effect in one study.[6]

   c. *Mitomycin-C treated melanoma cells* At the University of Maryland, allogenic melanoma cell vaccines were used as adjuvant active immunotherapy in patients with stage II disease, that is, with regional lymph node metastases.

Mitomycin-C was utilized to stop the cells ability from mitosis and to increase tumor cell antigenicity. All the patients underwent radical lymphadenectomy. The first 14 patients that received such therapy had finished 5 to 7 years of follow-up. Their ages ranged from 30 to 66 years (median = 50). They all presented with clinically positive lymph nodes. Pathologically, the number of involved lymph nodes ranged from 2 to 12. Some of the patients had matted lymph nodes.

Four weeks postoperatively, each patient received a single injection of BCG, then was skin tested with PPD (250 TU) two to three weeks later. Each patient (with PPD positive skin test) received 3 sets of vaccines one month apart, then was observed with no further therapy (unless they developed metastosis). Each vaccine consisted of 50 million mitomycin-C treated allogenic melanoma cells with PPD (250 TU).

Seven patients (50 percent) are alive, free of disease at 5 to 7 years (predicted 5-year survival of 10 to 22 percent).

Two new observations have been reported. First, it seems that better immunization can be achieved using autologous tumor cells, or at least histocompatible tumor cells in the allogenic situation.[7] Second, a low-dose schedule of cyclophosphamide 300 mgm per m^2 given intravenously daily x 3 prior to each vaccination will selectively inhibit suppressor cell activity against cellular immune responses and facilitates tumor rejection.[8]

Therefore, in an attempt to improve on our results, we are planning to add two modifications to our vaccine program: 1. Use autologous tumor cells if at all possible. 2. Each vaccine will be preceded by intravenous administration of cyclophosphamide. In addition, patient eligibility will include not only those with positive lymph nodes but also patients with limited metastases who can undergo surgical resection of their disease (creating disease-free individuals). Each patient will receive 5 vaccinations over a 4-month

period. The rationale here is to immunize with the best-available melanoma cells (autologous), and to maintain effective levels of immunity against emergent tumor cell clones.

Future Approaches

It has been reported that the generation of cytotoxic T-cell responses requires not only antigen recognition but also interaction with *T-cell growth factor* also known as *interleukin-2* (IL-2).[9] *In vitro*, IL-2 can induce multilog expansion of the number of lymphocytes.

Another finding is that human peripheral blood lymphocytes cultured with IL-2 generated lymphoid cells can lyse a broad spectrum of tumor cells in addition to autologous tumor, but not normal cells.[10] These are called *lymphokine-activated killer cells* (LAK).

A very important discovery is that lymphocytes recovered from tumors, known as *tumor infiltrating lymphocytes* (TIL) incubated with IL-2, will result in more toxic and more effective antitumor activity than LAK cells was noted *in vitro*. In animal tumor models, fewer TIL were required to induce tumor regression, and their antitumor effects were enhanced by pretreatment with cyclophosphamide.[11,12]

These observations are the beginning of a new and important era in tumor immunology.

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References

1. Bystryn JC, Oratz R, Harris MN et al. Immunogenicity of a polyvalent melanoma antigen vaccine in humans. Cancer 1988;61: 1065.
2. Hollinshead A, Arlen M, Yonemoto R et al. Pilot studies using melanoma tumor-associated antigens (TAA) in specific active immunotherapy of malignant melanoma. Cancer 1982;49:1387.
3. Cassel WA, Murray DR, Phillips HS. A phase II study on the postsurgical management of stage III malignant melanoma with a Newcastle disease virus oncolysate. Cancer 1983;52:856.
4. Fisher RI, Terry WD, Hodes RJ et al. Adjuvant immunotherapy or chemotherapy for malignant melanoma. Surg Clin North Am 1981;61:1267.
5. Seigler HF, Cox E, Mutzner F et al. Specific active immunotherapy for melanoma. Ann Surg 1979;190:366.
6. Hedley DW, McElwain TJ, and Currie GA. Specific active immunotherapy does not prolong survival in surgically treated patients with stage II B malignant melanoma and may promote early recurrence. Br J Cancer 1978;37:491.
7. Darrow TL, Slingluff CL, Seigler HF. The role of HLA class I antigens in recognition of melanoma cells by tumor-specific cytotoxic T lymphocytes. Evidence for shared tumor antigens. J Immunol 1989;142:3329.
8. Berd D, Maquire HC, Jr., Mastrangelo MJ. Induction of cell-mediated immunity to autologous melanoma cells and regression of metastases after treatment with a melanoma cell vaccine preceded by cyclophosphamide. Cancer Res 1986;46:2572.
9. Morgan DA, Ruscetti FW, Gallo R. Selective in vitro growth of T lymphocytes from normal bone marrow. Science 1976;192:1007.
10. Grimm EA, Mazumder A, Zhang HZ et al. The lymphokine activated killer cell phenomenon: Lysis of NK-resistant fresh solid tumor cells by IL-2 activated autologous human peripheral blood lymphocytes. J Exp Med 1982;155:1823.
11. Rosenberg SA, Spiess P, La Freniere R. A new approach to adoptive immunotherapy with tumor-infiltrating lymphocytes. Science 1986;233:1318.
12. Spiess P, Yang JC, Rosenberg SA. In vitro antitumor activity of tumor-infiltrating lymphocytes expanded in recombinant IL-2. J Nat Cancer Instit 1987;79:1067.

E. GEORGE ELIAS MD, PhD
Professor of Surgery & Oncology
Director, Surgical Oncology Program

■

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Psychiatry in Opera

Three years ago I was delighted to be invited to join the company of the Baltimore Opera as a supernumerary. My "debut" was in the highly successful Lehrmeyer production of "Turandot." I found myself portraying a number of different roles including the father of a homeless family, an angry priest, an individual assigned by Mr. Busterud to assist in the assassination of the tenor (which fortunately did not take place) and a role, traditional in less creative productions elsewhere, as a standard-bearer. This kind of activity combines the (1) need for a strong back, (2) the ability to stand for what seems like hours at a time, (3) costumes that may be too hot or cold depending on the role, (4) built-in histrionic inclinations, and (5) in the case of the Turandot, an interest in participating in 40 hours of rehearsals.

One might question why a contented and reasonably well thought of academic and clinical psychiatrist was not out of place in such a setting. I was assured firmly by Cynthia Haymon (the highly successful Mimi of the recent "La Boheme" production) that every opera company worth its salt should have a full-time psychiatrist in residence at all times, simply to deal with the pathological interactions between the artists.

My motivation was complex but, I believe, sensible. Having been interested in opera for most of my life, it was fascinating to observe close-up the development of an opera production almost from scratch and to participate in the creation of a work of art among a number of gifted visual and musical artists. Furthermore, drama in the theater and drama among individuals (what psychiatrists spend a fair amount of time dealing with) are not so far apart. Thoughtful students of the human condition, particularly in psychiatry, have often turned to artistic sources to enhance their understanding of psychiatric illnesses. Using themes found in the world of literature since Sophocles, one can understand better not only our patients but also our fellow citizens and ourselves. Opera is unique in its combination of literature, theater, and music and thus has an extended capacity for character delineation. Situations dramatizing the human condition are most appropriately expressed through the human voice.

A list of 300 operas in the current repertoire include 77 suicides of major characters, and since the seventeenth century, madness always has been a popular theme of operas. Particularly in the early nineteenth century opera, a popular pattern of mental illness was often depicted through a leading character as an undernourished woman with a touch of pathos, engagingly fragile, and subject to hysteria. The illness was frequently precipitated by a stressful event, most often unrequited love, which subsequently led to an aesthetic death. These characters performed a display of vocal pyrotechnics encompassing more than two octaves of coloratura. Donizetti, who himself died insane, spent most of his brief but successful career dealing with the theme of madness in his operas, producing 23 mad scenes.

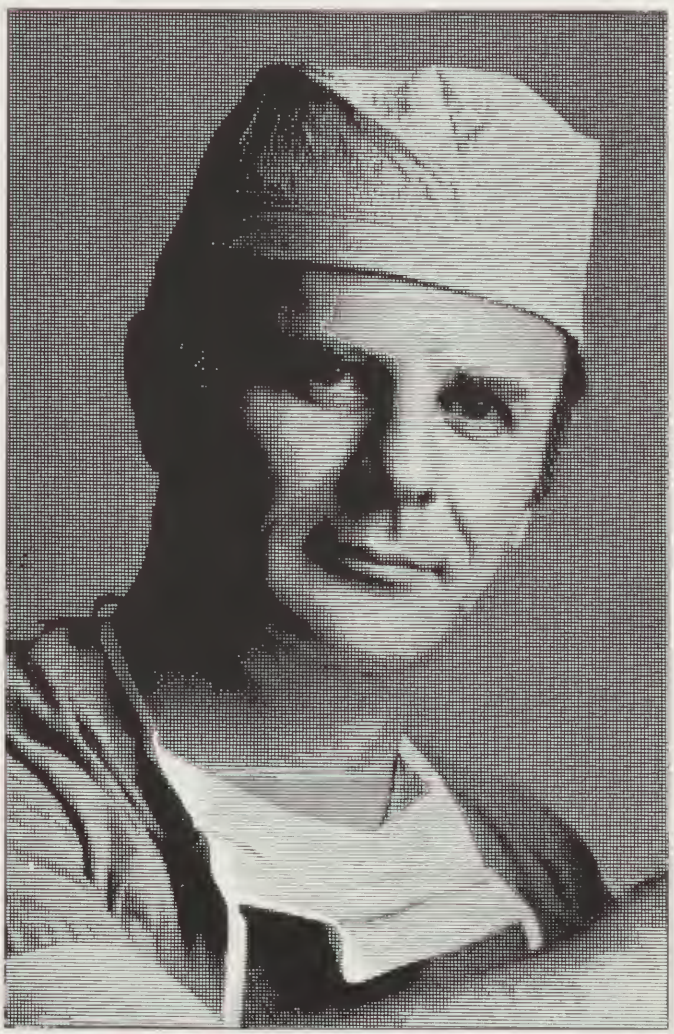
By the beginning of the twentieth century, as a result of great psychiatrists such as Freud and his American counterpart Harry Stack Sullivan (who spent much of his career in Towson), an effective understanding of the factors in the etiology and manifestation of psychiatric illness developed. Simultaneously the understanding of psychiatric disorders in opera was enhanced. Themes of identity conflict, resolution of the Oedipal and Electra complexes, sexual confusion, etc. were convincingly depicted in a number of modern operas. At the same time, the dramatic delineation of these roles changed. In nineteenth century opera performances the singer stood in one spot gesticulating rhythmically if aimlessly. Now singers increasingly turn to mental health clinicians to gain insights that help them communicate motivation and the outcome of psychological conditions. Similarly, mental health professionals use literature (including opera librettos and productions) to teach students about psychiatric disorder.

Here in Baltimore last fall we enjoyed a dramatic production of Strauss's "Salome." If one views this as a current family situation, rather than a portrayal of an Old Testament story, one can gain insights into an entire pathological family matrix. Later this spring we will be able to visit "Otello" and study the deterioration of a marriage and the death of its principals as the result of a pathological paranoid syndrome in the title role.

Thus the relationship between psychiatry and opera is not so far fetched. At least for one psychiatrist it has provided an opportunity to enhance his understanding of people, to learn a good deal about the complexities of opera production, to make a host of new friends, and in general to have a whopping good time participating *quietly* in a noisy but highly professional creative musical event.

STUART L. KEILL MD
Professor and Vice-Chairman for Clinical Affairs
Medical Director, Institute of Psychiatry and Human Behavior
University of Maryland School of Medicine

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Peripheral Vascular Disease and Percutaneous Catheterization

Doctor, I have pain in the calves of my legs after walking about a block or going up two flights of stairs. All I need to do to make the pain go away is stop walking for a few minutes, and it is gone. A friend told me that this might be due to smoking, but I stopped when I got diabetes about 15 years ago. Is it due to my age (which is 65) or to my diabetes? What can I do to make it go away or at least keep it from getting worse?

Claudication suggests peripheral vascular disease, a common complication of diabetes. By itself, blockage of the arteries in the pelvis and lower extremities can lead to incapitating claudication. In combination with diabetic neuropathy, chronic nonhealing foot ulcers and impotence can ensue.

In most diabetic patients peripheral vascular disease is a diffuse process involving medium and small arteries. However, when discrete areas of narrowing involve the larger arteries, the new techniques of percutaneous transluminal angioplasty and atherectomy may be indicated. Both techniques are performed via percutaneous catheterization of the involved vessels, as in diagnostic angiogram. In angioplasty, the catheter carries a small balloon, which squeezes open atheromatous plaque creating a larger channel for blood flow. Figures 1 and 2 are examples of pre- and postdilatation of a superficial femoral artery.

In the second technique, an atherectomy device carries a small rotating blade that shaves plaque from the vessel wall into a collection chamber for removal.

Following these procedures, patients are monitored in the hospital overnight and usually discharged the next day. While there is some risk of damage to arteries treated by these techniques, patients do avoid the risk of general anesthesia. Though angioplasty and atherectomy are not useful in the treatment of long occlusions or diffuse disease, some diabetic patients will benefit from their use alone or as an adjunct to surgical procedures such as amputation.

For family physicians and internists the first steps in evaluation of patients with claudication are doppler testing and diagnostic angiography. Percutaneous treatment of short stenoses will help prevent development of foot ulcers and hasten healing of existing ulcers. If foot ulcers can be corrected amputations will not be needed.

Submitted by Janet Storella MD, Radiologist, Suburban Hospital, Bethesda, MD 20814.

DeWITT E. De LAWTER MD ■



Figure 1. Predilatation superficial femoral artery (one min #46).



Figure 2. Postdilatation superficial femoral artery (one min #46).

Legal and Ethical Concerns of Your Medical Practice

This monthly digest will summarize the laws of the State of Maryland, as well as the guidelines, procedures, codes of cooperation, and policy statements of the Medical and Chirurgical Faculty. These laws and policies are being published to reflect recent areas of concern to physicians throughout the state. The Principles of Medical Ethics of the American Medical Association have been adopted as the ethical standards of the Medical and Chirurgical Faculty, and they govern the conduct of members in their relations to the public and to each other (Faculty Bylaws, Article XIII, Section1). For more information, please refer to the Compendium of Laws, Regulations, Opinions and Policies Governing the Practice of Medicine in Maryland.

■ ■ ■

Guideline for Professional Corporation Names

The Medical and Chirurgical Faculty's Committee on Professional Ethics considers applications for professional corporate names for all corporations with four or more shareholders. Following approval, the Faculty reports its findings to the Board of Physician Quality Assurance. If the corporation/association has less than four shareholders the Faculty is not involved in the approval process.

In all cases, the Maryland Department of Assessments and Taxation should be consulted when a corporate form is being considered. If the entity to be formed requires approval by the Faculty's Ethics Committee, it should submit a letter with the following information:

1. the proposed name of the corporation/association
2. the names of all shareholders
3. the medical licensure number of all shareholders
4. the respective signatures of all shareholders

The letter should be addressed to Erica Parker or Gregory Hall c/o the Medical and Chirurgical Faculty of Maryland, 1211 Cathedral Street, Baltimore, MD 21201-5585.

The following guidelines for professional corporate names should be adhered to:

GUIDELINES FOR PROFESSIONAL CORPORATION NAMES

1. The use of the name of a hospital or other institution can be approved only if:

(a) It is clear that it is the physician members of the medical staff of that institution which have formed the professional corporation, *and*,

(b) Each physician member of the medical staff at the institution is given the opportunity to participate in such professional corporation.

EXAMPLES:
Sinai Hospital Medical Staff Association, P.A.
Medical Staff of Sinai Hospital Professional Association.

In all cases, use of the hospital name must be approved by the hospital. In cases where the members of a particular department of a hospital wish to incorporate, the same rules will apply.

2. The use of the name of a medical school or the term "university" is prohibited. If legal under other statutes, the term "university" would be approved *only* for the University of Maryland Hospital as indicated above.

3. In using the name of a community, area, city, town, village, or other municipality, such names should not connote they are exclusive. Names prohibited would be similar to:

EXAMPLES:
Internal Medicine Association of Salisbury, P.A.
Salisbury Internal Medical Associates, P.A.

Such names would lead the public to believe there are *no other* internal medicine specialties in that community; or would tend to lead the public to believe that this group was the only or best qualified of such specialists. The use of a street name in connection with a professional corporation is permitted, however.

4. If the corporation name includes terms common to business for promotional purposes, such terms should not be false or misleading. Any tendency to "puff" or to bring attention to the name should be avoided. (MC 7/13/71; Compendium Revision 1984)

5. Wherever possible, the title of the group should indicate to the public the type of services rendered, such as psychiatry, dermatology, surgery, etc. Where this is not impractical, letterheads, invoices, etc., should contain the words, "Practice limited to ...", or some other identification that can be readily understood. (MC 7/13/71; Compendium Revision 1984)

6. Professional corporation names may not include the surname of any person unless it is the surname of an individual associated with the professional corporation, except as otherwise provided in these guidelines. (P/PRC 9/18/74)

7. When applying for approval of professional corporation designations applicants shall provide a document recording the signatures of each shareholder and

the serial number of their medical license. (P/PRC 10/26/82)

A sample application letter should resemble the following:

Erica L. Parker, Legal Assistant
Medical and Chirurgical Faculty of Maryland
1211 Cathedral Street
Baltimore, MD 21201-5585

Attn: Gregory Don Hall, Esquire

Re:(Corporation/
Association Name)

Dear Mr. Hall:

This office represents the following physicians who desire to form a corporation/association under the above-referenced name.

Name	Medical License #	Signature
John Doe	D00000	
James Smith	D01234	
Ken Anderson	D02345	
John Smith	D03456	

Please advise this office if the use of the name is acceptable.

Sincerely,
JOHN SMITH MD

GREGORY DON HALL PD, JD, LLM

Mr. Hall is associated with the law firm of Rifkin, Evans, Silver & Lamone, which represents the Medical and Chirurgical Faculty of Maryland.

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MISCELLANEOUS MEETINGS

June 4-8	**EVMS Family Medicine Review Course - Sixth Edition**, sponsored by the Department of Family and Community Medicine of the Eastern Virginia Medical School; Sheraton Beach Inn at Virginia Beach, VA. Info: 804-446-6140.
June 22-24	**Annual Meeting, The Virginia Society of Ophthalmology**, Omni International Hotel, Norfolk, VA. Info: D. Scott 804-353-2721.

Shady Grove Adventist Hospital, 9901 Medical Center Drive, Rockville, MD. Info: 301-279-6000.

June 7	Coronary Bypass Surgery: Postoperative Depression
June 14	Legal Implications of New Reproductive Technologies
June 21	Know Your PRO
June 28	Patient Profiling in Hypertension Therapy
July 5	Nutritional and Metabolic Aspect in Critical Care
July 12	Disorders of Attention in Adults and Children
July 19	Treatment of Malignant Ventricular Arrhythmias
July 26	Rehab Problems Associated with Nondominant Hemisphere CVAs

In Memoriam
Philip Tumulty MD

The recent death of Dr. Philip Tumulty, internationally renowned internist at Johns Hopkins Hospital, has left a void that will be difficult to fill. He represented an era in which internists were considered the premier physicians in the world. The difficult diagnosis was their hallmark. This Sherlock Holmes quality of internists was quickly sought whenever a patient was critically ill and difficult to diagnose.

The uncanny ability of Dr. Tumulty to meticulously detail the history of the patient and weigh such information in the overall management of the patient was a feat that occurred repeatedly; it became Dr. Tumulty's trademark. His stimulating educational abilities with students and faculty was a pleasure and an experience to those in attendance that comes only occasionally in one's lifetime. Sir William Osler would have been truly proud of this individual who followed very closely in his footsteps and exemplified the saying, "Medicine is learned at the bedside and not in the classroom."

For some reason internal medicine is not a popular specialty these days. The financial incentives and the high-tech specialties may have temporarily replaced the diagnosis of tough cases by proper history taking, but medicine will be great again only when the core of its existence depends on the solidarity of the unappreciated internist.

It is with reverence and respect that we note the passing of a great physician, a great teacher, a wonderful educator, and a throwback to Sir William Osler, a model whom medicine needs to embrace and cherish in the days ahead.

RAYMOND D. BAHR MD
St. Agnes Hospital
Baltimore

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June 1

Ernst Bodenheimer Lectureship, 5 p.m. Arnall Patz Lecture Room, Wilmer Ophthalmological Institute, Johns Hopkins Hospital. Info: 301-955-5700.

June 4

Monday Morning Conference, 8 a.m., Arnall Patz Lecture Room, Wilmer Ophthalmological Institute, Johns Hopkins Hospital. Info: 301-955-5700.

June 4-15

Third Summer Institute in Environmental Health Studies. Subjects include Risk Assessment & Risk Management, Toxicology, Physiology, Occupational Health, Industrial Hygiene, Radiation Health Science, and Risk Communication. Academic or CEU credit. Info: J. Corn 301-955-2609.

June 11

Monday Morning Conference, 8 a.m., Arnall Patz Lecture Room, Wilmer Ophthalmological Institute, Johns Hopkins Hospital. Info: 301-955-5700.

June 18

Monday Morning Conference, 8 a.m., Arnall Patz Lecture Room, Wilmer Ophthalmological Institute, Johns Hopkins Hospital. Info: 301-955-5700.

June 20-23

Second Baltimore Perinatal Colloquium, sponsored by the Department of Gynecology and Obstetrics, Divisions of Maternal-Fetal Medicine, The Johns Hopkins University School of Medicine and The University of Maryland School of Medicine. Fee: physicians $450, residents $250 (with letter from department chairperson verifying status); 24 AMA cat I credits, ACOG cognates available.

June 25

Monday Morning Conference, 8 a.m., Arnall Patz Lecture Room, Wilmer Ophthalmological Institute, Johns Hopkins Hospital. Info: 301-955-5700.

July 16-20

Control of Biohazards in the Research Laboratory, sponsored by the Office of Safety & Environmental Health, The Johns Hopkins Institutions, and the Department of Environmental Health Sciences, The Johns Hopkins University, School of Hygiene and Public Health. Info: B.S. Tepper 301-955-5918 and/or J. Corn 301-955-2609.

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Visiting Physicians - offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. Fee: $500; 40 AMA Cat I credits.

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CME Courses: For each course additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (301-328-3956) or by calling the phone number listed under a specific program.

June 14-17

Third Annual Trauma Anesthesia and Critical Care Symposium. Pre-symposium workshops on ATLS, ACLS, ABLS, APLS, and CRNAs also will be held. Info: MIEMSS Office of International Development, 11 S. Paca St., Ste 303, Baltimore, MD 21201 (301-328-2399).

June 24-29

Sixteenth Annual Family Medicine Review Course, Carousel Hotel, Ocean City, MD. Fee: $395; 20+ AMA and AAFP credits.

June 25

The Role of Law and Ethics in Hospital Ethics Committees, University of Maryland, the Hospital Associations in Maryland, Virginia, and the District of Columbia are cosponsors. Info: Law & Healthcare Program, University of Maryland School of Law 301-328-3378.

June 28-29

Ninth Annual Update in Obstetrics and Gynecology, Annapolis. Fee: $200; 14 AMA credits and ACOG cognates.

August 25

Hormonal Replacement Therapy, Baltimore. Location, fees, credits to be determined. Info: S. Stenhouse 301-328-3956.

September 14

Current Concepts in Ophthalmology: Tenth Annual Clinical Conference, Columbia Inn, Columbia. Includes the Fourth Annual Lois A. Young-Thomas Memorial Lecture. Fee; $60; 6 AMA Cat I credits.

October 6-7

Sixth Annual Contact Lens Symposium, Stouffer Harborplace Hotel, Baltimore. Fee: $165 before September 21; 12 AMA Cat I credits.

Continuously Throughout the Year

Visiting Professor Program - Directory of speakers and topics available for area hospitals and other health care organizations. No administrative fee. Info: 301-328-3956.

Visiting Practitioner Preceptorships - Opportunity for physicians to participate in clinical situations in the University of Maryland Medical Systems. Requires approval from clinical department/division heads. Hour-for-hour Cat I credits available. Direct all inquiries to CME 301-328-3956.

Departmental Rounds and Conferences - Weekly, hands-on and lecture presentation hosted by the University's clinical departments. Hour-for-hour AMA Cat I credits available. Brochure available.

Advanced Trauma Life Support Provider/Instructor Programs sponsored by University of Maryland/MIEMSS. Info: M. Nelson 301-328-2919.

July 19-20 Provider
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September 12-14 Instructor
October 18-19 Provider
November 15-16 Provider
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A Physician's Guide to Professional Corporations, OP 378289, is available at $18 for AMA members ($27 for nonmembers), from the American Medical Association, Book and Pamphlet Fulfillment, PO Box 10946, Chicago, IL 60610-0946 or call 800-621-8335 with VISA or Mastercard to order.

■ ■ ■

Medical Eye Care for the Needy Elderly

You can help elderly patients in Maryland obtain medical eye care if they cannot afford it. Suggest they call the toll-free Helpline of the National Eye Care Project (800-222-EYES). Each qualified caller will be matched with a nearby Maryland ophthalmologist who has volunteered to provide medical eye care for disadvantaged elderly at no out-of-pocket cost to the patient. If the elderly person is covered by Medicare or other health insurance, the physician has agreed, for this project only, to accept insurance assignment as payment in full. If the patient has no medical insurance, the care is free.

To qualify the patient must be age 65 or older and a US citizen or legal resident. The patient must no longer have access to an eye physician and surgeon (ophthalmologist) he/she has seen in the past. This is NOT an eyeglasses program, and prescription drugs or hospital care are not provided. The National Eye Care Project is designed to detect and treat eye disease, which is prevalent among the elderly and a frequent cause of blindness.

The National Eye Care Project is sponsored by the Maryland Society of Eye Physicians and Surgeons and the Foundation of the American Academy of Ophthalmology. Since the project began four years ago, more than 4,270 Maryland residents have called the NECP Helpline, and more than 2,813 needy elderly within the state have been referred to volunteer ophthalmologists.

In Maryland, the following numbers of potentially blinding eye diseases have been detected and treated in 1,590 patients from whom records are available:

845 cases of cataract
83 cases of glaucoma
179 cases of macular degeneration
35 cases of diabetic retinopathy

"It is estimated that more than half of all blindness is preventable, and the elderly are particularly vulnerable to eye disease," said Robert A. Liss MD, president of the Maryland Society of Eye Physicians and Surgeons. "We urge all disadvantaged elderly people who need medical eye care to call the toll-free Helpline for prompt assistance." ■

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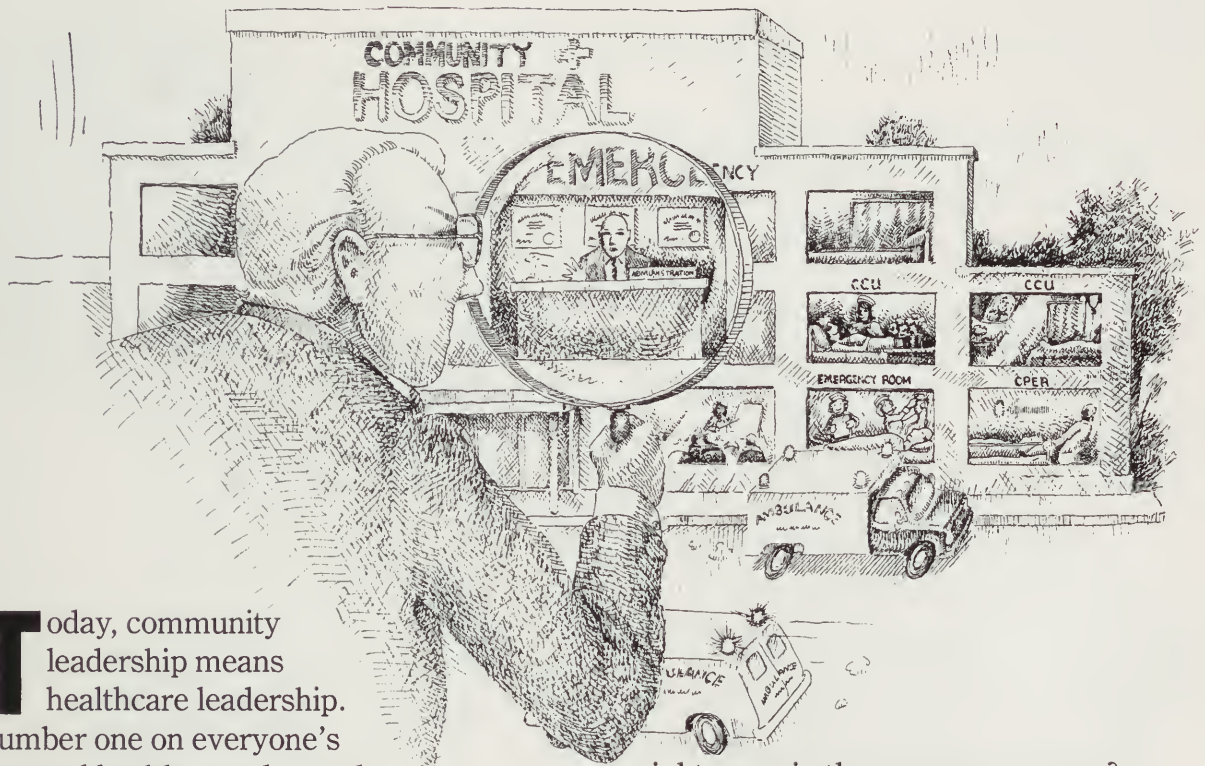
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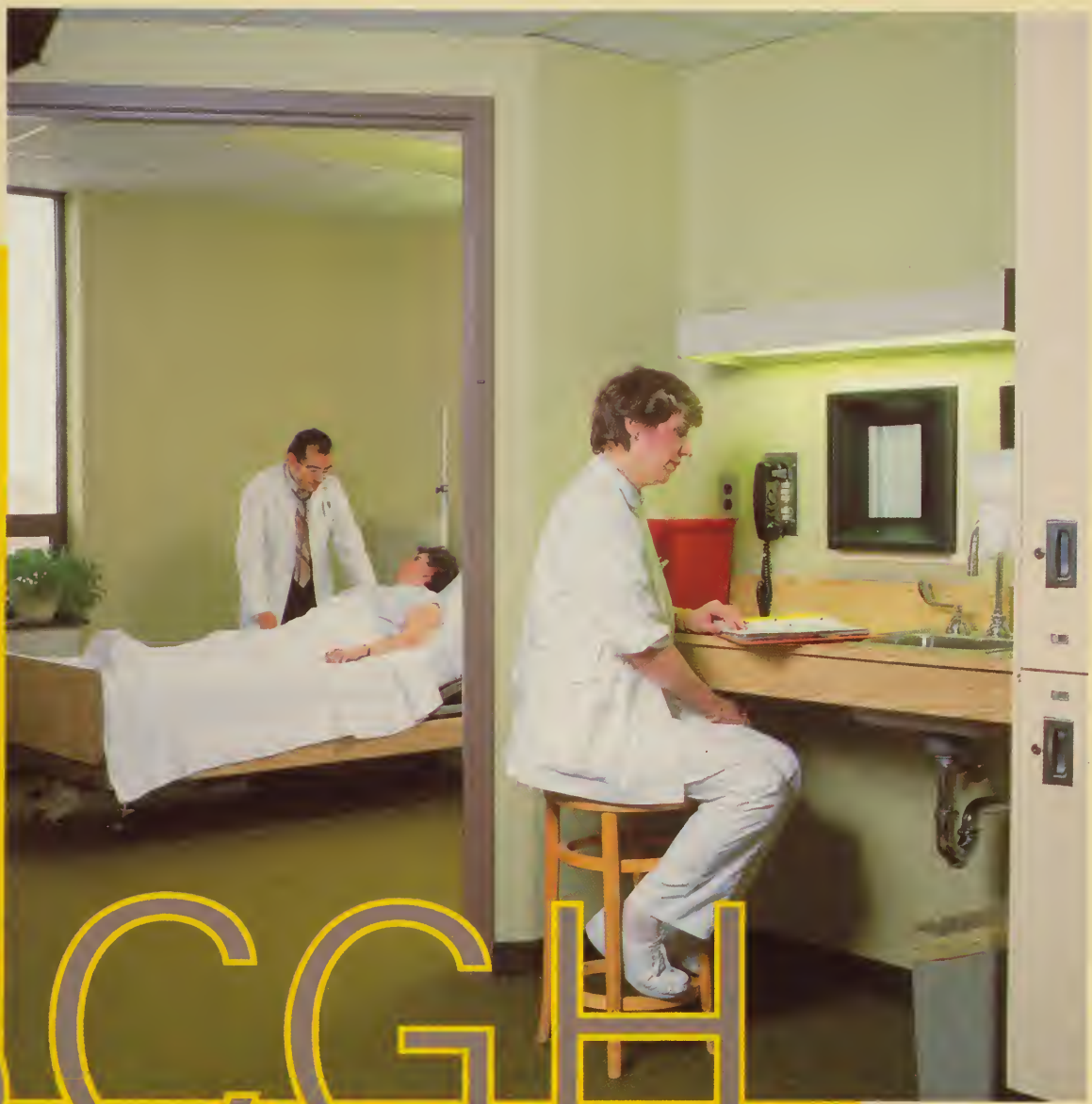
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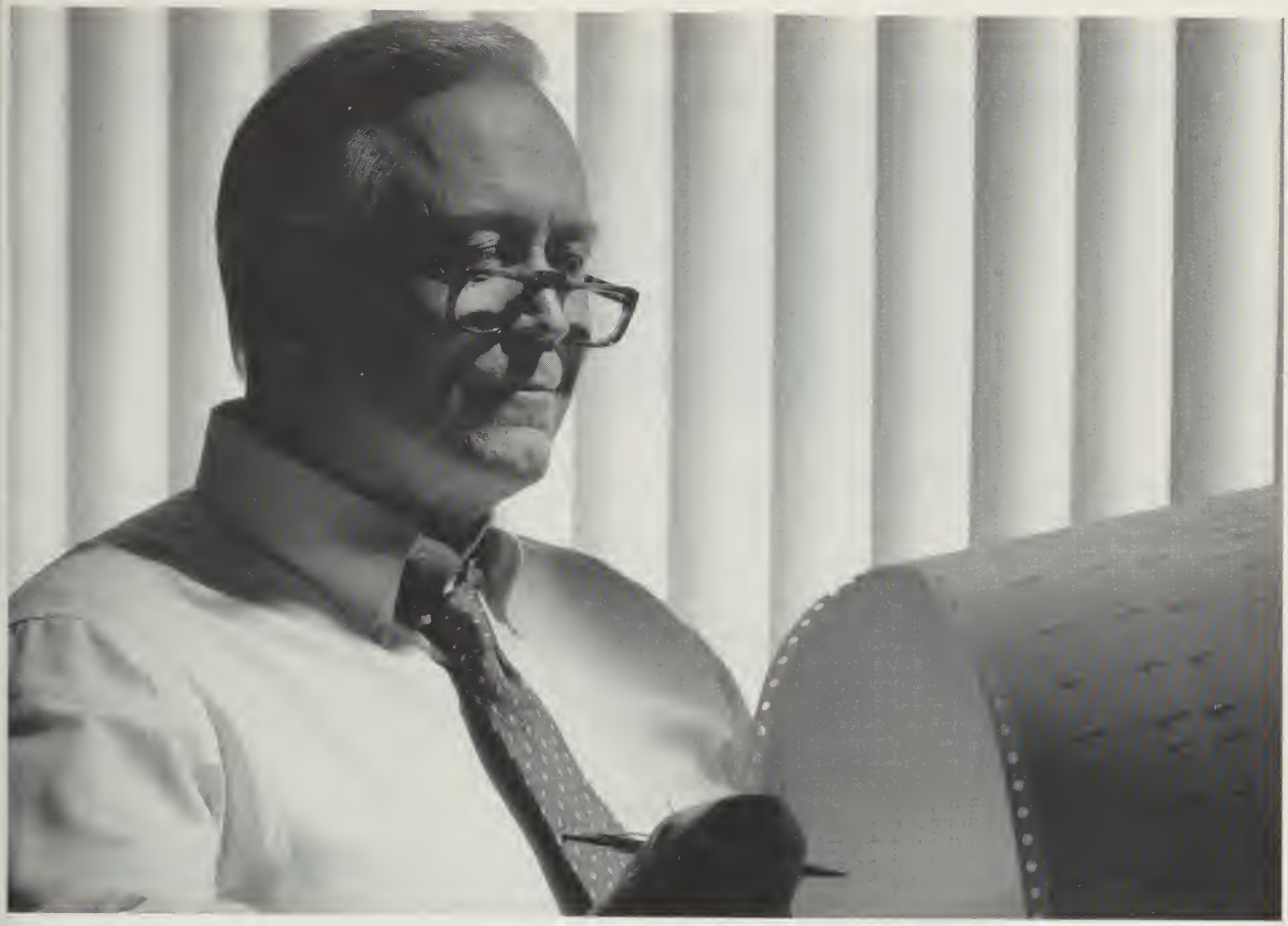
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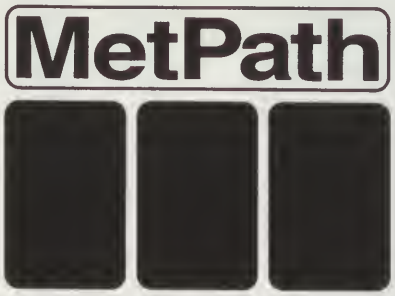
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Diabetic Retinopathy: Recent Advances to Eliminate Treatable Blindness 643
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Recent advances in the management of diabetic retinal vascular disease are of potentially great benefit to the patient. The primary care physician plays an increasingly important and responsible role in directing patients to the care they need to help preserve their sight.

Advances in the Electrodiagnosis of Nerve Injury 649
Ira Wexler PhD, MD

Needle electrode nerve conduction recording is a powerful complement to the traditional techniques of EMG sampling of muscle and surface motor conduction measurements.

Functional and Cosmetic Surgery of Nose and Ear Deformities in Children and Adolescents 655
N. Edward Nachlas MD, Ira D. Papel MD, and Albert Steiner MD

Because congenital and traumatic disorders of the nose and ear in children and adolescents may be the result of many different factors, each patient must be dealt with on an individual basis.

Immediate Reconstruction after Mastectomy: Team Approach 661
Elmer Hoffman MD, FACS; Stanley A. Klatsky MD, FACS; and Alan S. Davis MD, FACS

A review of 198 cases of breast reconstruction done at the time of mastectomy for carcinoma of the breast shows an extremely low morbidity. The technique of using a tissue-expander prosthesis enables immediate breast reconstruction without any fear of impairing prognosis, of spreading disease, or of impeding adjuvant therapy.

Liposuction: Blood Loss and Autotransfusion 667
Mitchel A. Kanter MD and William R. Kanter MD

Blood loss usually is not clinically significant during liposuction, but the need for transfusion increases with the amount of tissue removed. Autologous blood donations in preparation for significant blood loss are widely accepted by patients and physicians.

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Nonparasitic Splenic Cysts 671
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Splenic cysts are rare: cystic changes occur less frequently in the spleen than does disease of any other abdominal viscera.

Case Report: Adenocarcinoma of the Anal Canal 675
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Results of Cholecystectomy in a Community General Hospital 679
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Biliary tract surgery can be done in a nonresidency hospital with extremely low morbidity rates, an absence of wound infections, an absence of wound dehiscences, and absence of mortality.

DEPARTMENTS

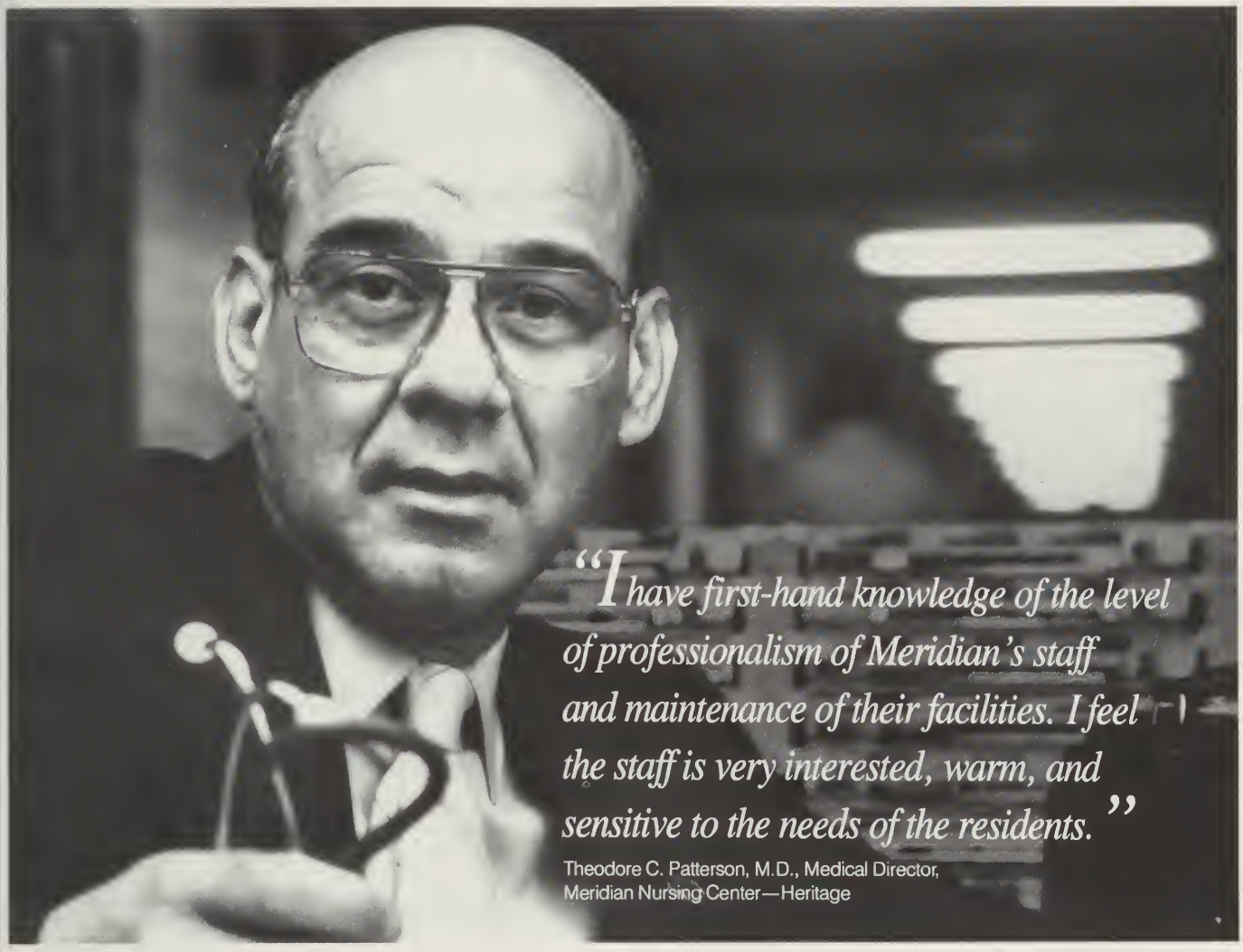
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Cover: Serving the northwest Baltimore metropolitan area for 25 years, the Baltimore County General Hospital (BCGH) has diversified into a multi-service healthcare facility capable of offering the latest in surgical and medical treatments to meet the needs of the community. The articles in this issue illustrate the wide variety of services available at BCGH.

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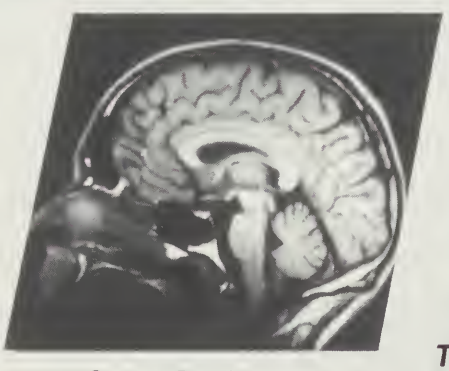
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July 1990

Selected Communicable Diseases in Maryland in 1989

This report briefly describes the epidemiology of selected communicable diseases in Maryland in 1989, reported from local health departments, hospitals, physicians, other health professionals and laboratories. For many diseases additional information was obtained from the active surveillance system maintained by communicable diseases coordinators in the local health departments and by hospital infection control practitioners. The number in parenthesis after the name of each disease indicates the reported cases with onset of illness in 1989. Following, is the incidence rate in Maryland (based on the number of cases reported in 1989 and the Maryland Department of State Planning population projections for 1990, rev.87),and then the U.S. incidence (based on the cumulative number of cases reported to the Morbidity and Mortality Weekly Report system in 1989 [from: CDC.MMWR 1989, Vol.38, Nos. 51 & 52] and the U.S. Bureau of Census population estimate on July 1, 1989).

ENCEPHALITIS (23)

PRIMARY AND POSTINFECTIOUS

0.5/100,000 (U.S. - 0.4/100,000)

In Maryland more than half (56.5%) of all cases occurred in the Montgomery - Prince George's area. In Prince George's county 7 of a total of 8 patients had onset of illness in April and May. They were between 11 months and 72 years of age. No common infectious agent was identified. The number of cases by county is shown in Table 1. Overall the peak incidence (7 cases) occurred in April; no seasonal pattern was observed during the rest of the year. The male to female ratio was 0.9:1.0; the ratio of whites to nonwhites was 1.9:1.0. The age ranged between 11 months and 79 years (mean 31.2 years); 34.8% of the cases were 19 to 24 years of age, the peak affected age group. Three patients died for a case fatality rate of 15.8 percent; the outcome for 4 cases was unknown; the rest recovered. The following infectious agents or illnesses caused or were suspected to have caused the cases: Herpes viruses (8 cases, including 1 post-shingles and 1 post-varicella case), Epstein-Barr virus (1), rotavirus (1) and eastern equine encephalitis (EEE) virus (1). The EEE, was confirmed by serum IgM antibody positive test in a 58-year-old resident of the Eastern Shore in early October. The patient died within 24 hours of onset of seizures. No specific exposure was identified, but EEE among pheasants and equines in the area had been observed since July.

GONOCOCCAL INFECTIONS (23,194)

501.3/100,000 (U.S.298.0/100,000)

Reported gonococcal infections rose by 12 percent over the number reported in 1988 (Figure 1). This increase is the first noted since 1985. At the same time, the cases of penicillinase-producing Neisseria gonorrhoeae (PPNG) rose by 81 percent from 1328 (6.3%) in 1988 (U.S.- 3.2%) to 2405 (10.4%)

TABLE 1. REPORTED CASES OF NOTIFIABLE DISEASES BY COUNTY
MARYLAND, 1989

COUNTY / DISEASE	POPULATION	RUBEOLA (MEASLES)	RUBELLA (GERMAN MEASLES)	MUMPS (INF. PAROTITIS)	PERTUSSIS	VIRAL HEPATITIS A	VIRAL HEPATITIS B	VIRAL HEPATITIS NA/NB	VIRAL HEPATITIS UNSP.	MENINGOCOCCAL DISEASE	H. INFLUENZAE DISEASE	MENINGITIS, VIRAL	ENCEPHALITIS, VIRAL	ROCKY MOUNTAIN SPOTTED FEVER	LYME DISEASE	LEGIONELLOSIS	SALMONELLOSIS	TYPHOID FEVER	SHIGELLOSIS	TUBERCULOSIS	SYPHILIS, PRIMARY AND SECONDARY	SYPHILIS, CONGENITAL	GONORRHEA	RABIES, ANIMAL
ALLEGANY	73,699	–	–	–	9	5	1	1	–	1	–	5	1	–	–	–	11	–	1	–	1	–	46	16
ANNE ARUNDEL	427,999	3	–	146	13	140	49	2	–	13	2	18	–	4	14	2	99	–	21	15	12	–	736	31
BALTIMORE CITY	745,100	1	–	21	20	626	294	3	6	12	16	37	–	1	6	4	353	–	70	119	190	4	11222	9
BALTIMORE CO	686,999	24	–	19	5	226	54	3	3	9	10	35	3	2	18	5	246	2	21	41	17	–	548	69
CALVERT	49,003	–	–	1	4	4	7	–	1	2	1	3	–	–	8	1	22	–	1	3	2	1	104	8
CAROLINE	24,698	–	–	1	2	1	4	–	1	–	–	2	–	–	2	1	8	–	–	2	6	–	99	–
CARROLL	120,796	–	–	43	1	10	17	1	2	–	2	4	–	–	1	1	30	–	11	1	–	–	46	17
CECIL	70,199	1	–	2	–	10	15	5	1	2	–	6	1	–	7	1	15	–	5	2	2	–	125	44
CHARLES	100,201	1	–	15	5	1	8	–	1	4	2	2	1	1	13	3	10	–	2	2	9	–	233	7
DORCHESTER	30,098	–	–	–	4	1	9	–	–	–	–	8	3	3	3	1	16	–	3	5	35	–	447	–
FREDERICK	143,295	–	–	4	1	58	25	2	1	–	–	1	–	–	3	1	16	–	3	10	8	–	388	45
GARRETT	27,302	8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	7	7
HARFORD	167,402	5	–	5	2	23	38	2	–	3	–	10	–	–	4	–	58	–	2	3	4	–	134	27
HOWARD	176,099	8	–	5	11	20	10	–	–	–	1	2	–	–	3	–	52	–	25	4	3	–	157	21
KENT	16,999	–	–	2	–	–	1	–	–	–	–	1	–	–	11	–	–	–	–	1	1	–	24	2
MONTGOMERY	709,996	39	2	67	4	37	43	3	3	12	18	31	8	–	16	2	226	8	43	79	51	5	972	26
PRINCE GEORGE'S	710,999	31	–	251	8	27	65	3	–	11	12	51	6	2	8	4	165	2	29	86	407	7	6338	32
QUEEN ANNE'S	33,302	–	–	1	–	–	5	–	–	–	–	1	–	–	11	1	9	–	–	5	3	–	70	–
SAINT MARY'S	71,902	1	–	36	1	2	3	1	1	1	1	5	–	1	3	1	27	–	5	–	7	–	263	4
SOMERSET	22,101	–	–	–	–	–	6	–	–	–	2	1	–	–	–	–	10	–	1	–	2	–	128	–
TALBOT	28,799	–	–	1	–	–	2	–	–	–	–	1	–	5	2	–	19	–	1	–	7	–	160	1
WASHINGTON	117,503	–	–	3	2	5	5	–	–	2	4	17	–	–	1	7	23	–	21	4	4	–	235	22
WICOMICO	73,303	–	–	–	3	3	5	2	–	3	–	5	–	–	2	–	49	–	7	10	20	2	590	–
WORCHESTER	38,404	–	–	2	1	1	2	–	–	3	2	–	–	–	2	–	27	–	4	3	8	–	122	1
MARYLAND	4,666,198	122	2	625	96	1200	668	28	20	78	73	246	23	19	138	35	1495	12	276	395	799	19	23194	389
STATE TOTAL	1988	19	1	204	43	307	691	49	47	57	122	213	18	26	55	30	1617	6	736	466	689	7	20982	338
	1987	10	4	47	27	253	849	58	39	55	124	389	32	43	21	29	1810	8	632	429	597	2	24132	450
	1986	35	1	34	166	198	840	84	29	52	109	275	34	23	9	52	1642	16	233	362	448	1	28287	683
	1985	115	6	38	312	89	709	120	52	61	100	281	32	27	NA	12	1504	12	190	434	500	1	31270	760

OTHER DISEASES

AIDS	676
AMEBIASIS	9
BOTULISM, INFANT	1
CAMPYLOBACTER INFECTIONS	279
GIARDIASIS	89
GUILLAIN-BARRÉ SYNDROME	11
KAWASAKI SYNDROME	20
LEPTOSPIROSIS	1
LISTERIOSIS	6
MALARIA	42
MENINGITIS, BACTERIAL	157
MYCOBACTERIOSIS	314
NEWBORN, INFECTIONS	158
POLIOMYELITIS (VACCINE ACQUIRED)	1
PSITTACOSIS	2
REYE SYNDROME	1
TETANUS	1
TULAREMIA	2
YERSINIOSIS	34

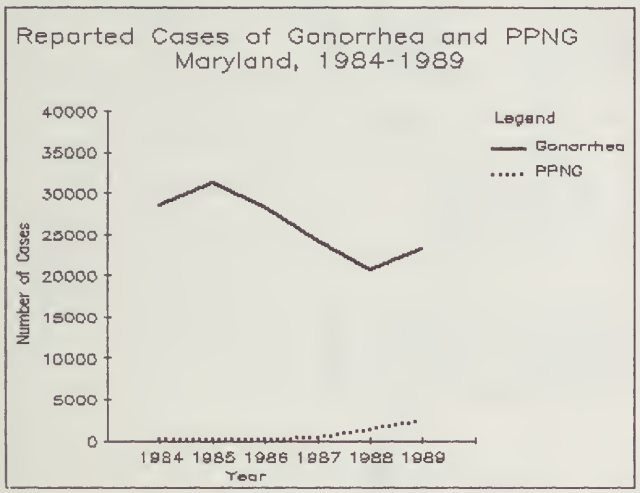


Figure 1

in 1989 (U.S.-7.4%). Baltimore City, Dorchester, Prince George's and Wicomico counties showed the highest incidence rates (1501.3, 1495.0, 917.4 and 808.2/100,000, respectively). The number of cases in each county is shown in Table 1.

Thirty-three percent of all reported gonorrhea cases were among 20 to 24 year olds, 32 percent were 15 to 19, 23 percent were 25 to 29, and 12 percent were 30 to 34 years old (Figure 2). Where race information was reported, data show that 93 percent of male cases and 86 percent of female cases were among blacks.

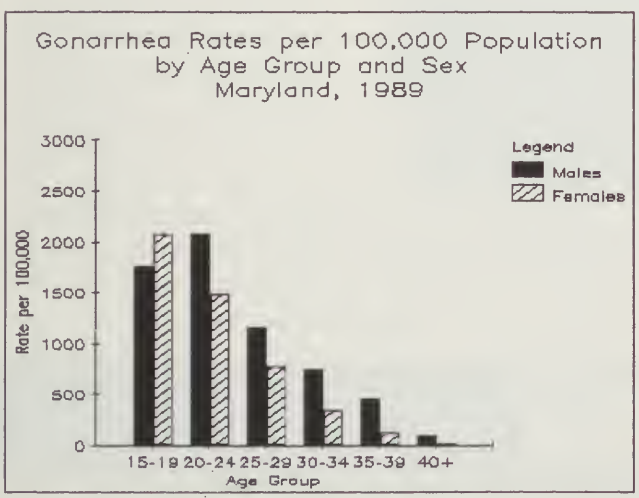


Figure 2

HAEMOPHILUS INFLUENZAE DISEASE (73)

1.6/100,000 (U.S. - Not Available)

The number of reported infections declined by 40 percent--73 cases in 1989 compared to 122 cases in 1988. The type of reported invasive H. influenzae illness is shown in Figure 3.

Cases were reported from 12 counties and Baltimore City (Table 1) and occurred throughout the year. The male to female ratio was 1.3:1.0. The incidence rate in males was 1.8 per 100,000, and in females - 1.3 per 100,000. The incidence rate in whites was 1.1 per 100,000, and in nonwhites - 2.6 per 100,000.

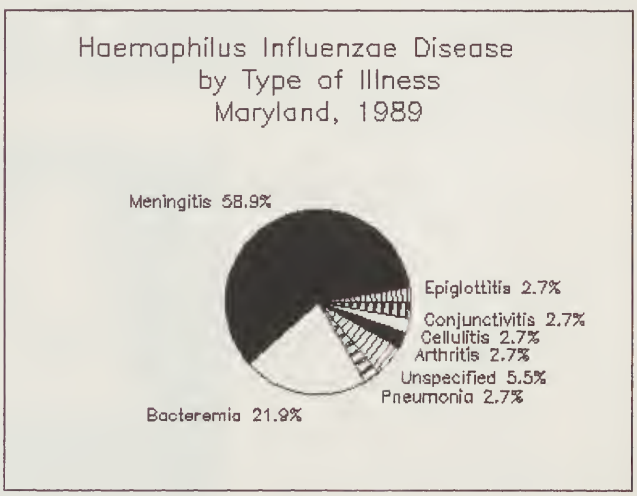


Figure 3

Forty-nine (67.1%) of the cases were less than 18 months old, including 8 (11.0%) neonates, 13 infants 1-5 months old, 18 infants 6-11 months old and 10 children 12-17 months old. None of these were vaccine preventable. Figure 4 shows the age group distribution of meningitis cases only.

Seventeen (23.3%) of the patients were eligible for vaccination (18 months to 5 years of age). Of these 2 (11.8%) had been immunized before the onset of the illness, 5 (29.4%) had not been vaccinated, and 10 (58.9%) had unknown vaccination status.

Information on the ampicillin resistance of H.influenzae isolates from 31 patients

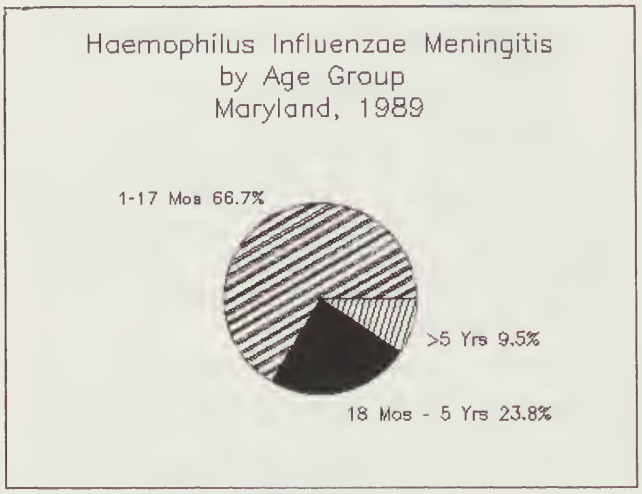


Figure 4

showed that 29% were resistant to ampicillin, a decrease from 42 % in 1988 (Figure 5). Two of the ampicillin-resistant isolates from patients with meningitis and bacteremia/otitis/arthritis, were resistant to chloramphenicol as well.

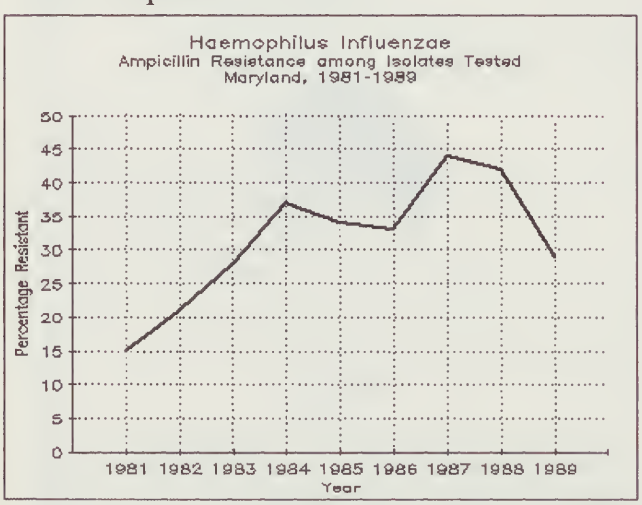


Figure 5

HEPATITIS A (1200)

25.7/100000 (U.S. 14.1/100,000)

The dramatic tripling of reported cases of hepatitis A in 1989 (Figure 6) is almost entirely explained by a discrete outbreak in Frederick County in January through April and an ongoing epidemic in the metropolitan Baltimore area, including Baltimore City, Baltimore County, and Anne Arundel County. The number of cases by counties are shown in Table 1.

Almost half of the patients (46.4 %) had onset of illness between August and November. The male to female ratio was 1.4:1.0 (1.3:1.0 in whites, 2.3:1.0 in blacks and 0.7:1.0 in Asian, Hispanic and other race/ethnic groups). Half of all cases (49.8%) were 20 to 34 years of age; 9.2 % and 9.8 % were 5 to 9 and 35 to 39 years old, respectively. The highest rate (142.8/100,000) was seen in white males, 25 to 29 years old.

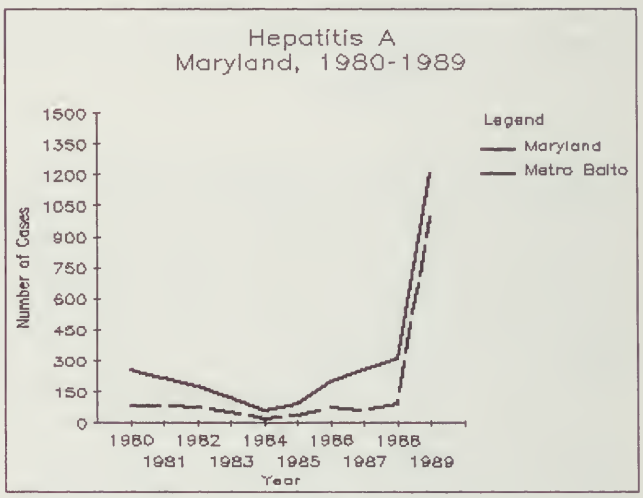
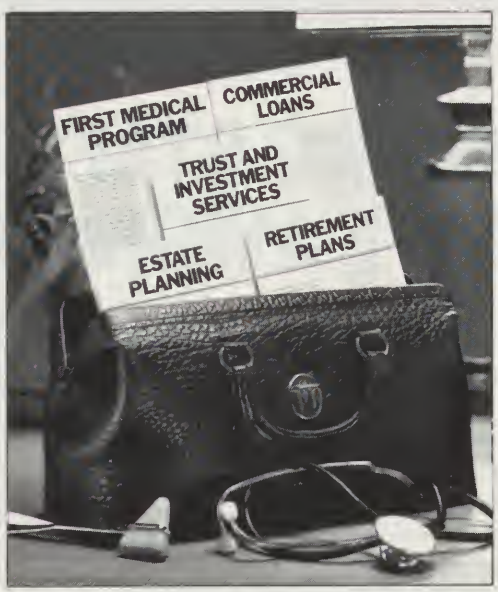


Figure 6

The diagnosis of 93.2% of the reported cases was confirmed by a positive hepatitis A IgM antibody test. A known or suspected source of infection was reported for only 379 (31.6%) of the cases. Of these, 187 (49.3%) had contact with a confirmed or suspected hepatitis A case, 86 (22.7%) used illegal drugs (compared to 13% in 1988), 38 (10.0%) were food handlers and/or had consumed potentially contaminated food, and 68 (17.8%) had other sources of exposure. A recent more detailed study showed that 75 of 169 (44.4%) cases over 15 years of age in Baltimore City and 24 percent of cases over 10 years of age in Baltimore County, used illicit drugs.

Continued next month.

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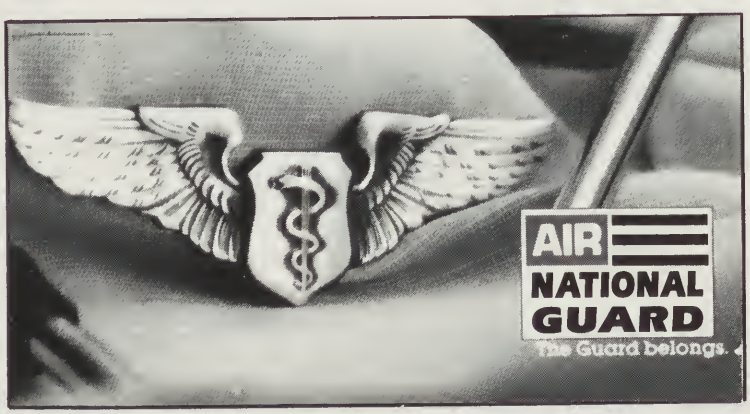
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Adjuvant Immunotherapy in Patients with Melanoma: A New Approach

Extensive experimental studies in human tumor immunology indicate that melanoma is an immunogenic tumor. A variety of *in vitro* and *in vivo* generated data strongly suggest the presence of tumor-associated antigens (TAA) and have detected tumor-specific cellular and humoral immune response. The majority of melanomas have a common antigen that is immunogenic in patients with this disease. There is clear evidence that melanoma patients' lymphocytes develop cytotoxic activity against tumor cells in the early stage of the disease but lose it in the advanced stages.

The question why such immune response diminishes and cannot be detected clearly in cancer-bearing patients remains unanswered although there are several theoretical explanations. One possibility is the weak antigenicity of the tumor may not elicit a strong host reaction. Several attempts have been made to enhance tumor cell antigenicity by attaching BCG, its derivative PPD, or BCG in the form of complete Freund's adjuvant as an immunogenic carrier determinant into the tumor cell surface. Immunization with such coupled tumor cells does potentiate a marked antitumor response even to tumors that are very weakly antigenic.

Sensitization with mitomycin-C treated tumor cells seem to produce pure cell-mediated immunity with no detectable humoral component that may trigger blocking factors. Attempts to sensitize melanoma patients with irradiated tumor cells revealed that the lymphocytes became cytotoxic to the melanoma cells one week after sensitization, but it disappeared three weeks later. Furthermore, it has been suggested that although tumor cells could initially stimulate antitumor response, it is subsequently suppressed by massive tumor growth. The mechanism for this phenomenon might be due to the generation of antigen-specific suppressor T-cells. Such tumor-specific suppressor cells have been demonstrated in various tumor-bearing animal models. The attempts to selectively eliminate T-suppressor cells led to the discovery that low doses of cyclophosphamide (cytoxan) can specifically affect suppressor T-cell population. It also has been shown that cytotoxic T lymphocytes can lyse autologous and histocompatible melanoma cell, but not incompatible allogenic melanoma cells.

In an attempt to establish active immunization of patients with melanoma, several attempts have been made using vaccines: (1) isolated TAA, (2) melanoma antigen prepared from material shed into culture media from pooled allogenic human melanoma, and (3) melanoma lysates. Such attempts showed different degrees of success. However, we and others have shown that viable tumor cells are more immunogenic than any extracts of these cells. We also have emphasized that tumor-specific immunotherapy is more beneficial if administered to patients with low tumor load (that is, grossly tumor free) but who have a guarded prognosis.

In one of our previous clinical trials in melanoma, fourteen patients with clinically enlarged regional lymph nodes who underwent lymphadenectomy and were found to have metastases in two to twelve lymph nodes, received adjuvant immunotherapy. They were vaccinated with mitomycin-C treated homologous melanoma cells in PPD (250 TU), after being converted to PPD positive skin test after receiving BCG. These vaccinations were administered intradermally, once a month, on three occasions. At five to seven years of follow up, seven patients (50 percent) are alive free of disease, compared to less than 10 percent expected survival in the historical controls who were treated by surgery and received no vaccination. Encouraged by these results, we are pursuing and expanding our immunization program to include not only patients with regional metastases but also those with limited distant metastases that can be surgically resected.

In our new tumor vaccine program we are using (1) autologous tumor cells (from patient's own tumor), (2) cyclophosphamide injections prior to each vaccination, and (3) five vaccinations over a four-month period. This is an attempt to improve the immunization according to the new data.

GEORGE ELIAS MD, PhD
Professor of Surgery and Oncology
Director, Surgical Oncology Program
University of Maryland

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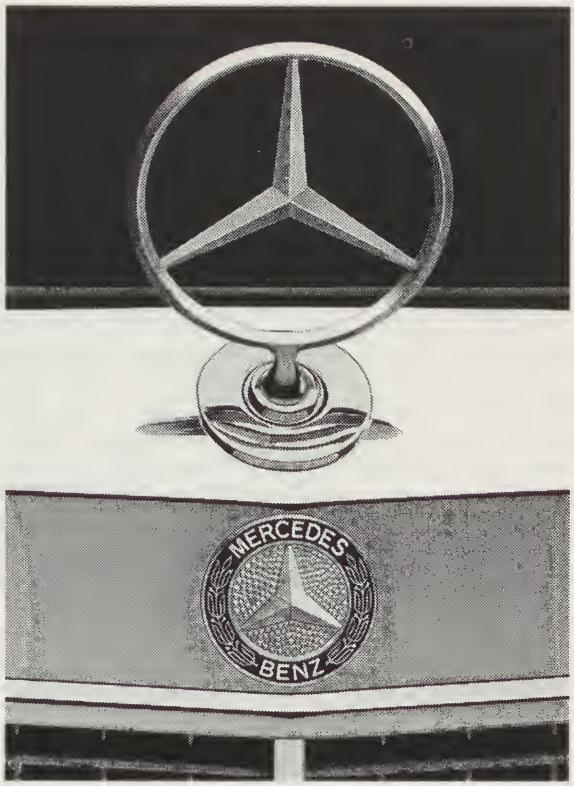
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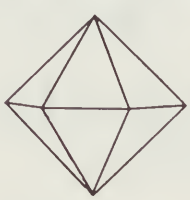
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July 90

Drug Conference

Every physician plays a critical role in the war on drugs. To help you recognize problems associated with alcoholism and drug addiction, Med Chi is offering a seminar on "Practical Clinical Management: Drug Abuse Education for the Primary Care Physician" on Saturday, October 20, and Sunday, October 21, 1990 at the Baltimore Convention Center. Physicians attending the conference will hear talks by noted professionals including, Robert DuPont MD, former Director of the National Institute on Drug Abuse, and Sidney Schnoll MD, PhD from the Division of Substance Abuse at the Medical College of Virginia. Topics for the seminar include management of cocaine and heroin abuse, recognition of the addict in a clinical setting, and legal aspects of treating the addict. Med Chi designates 10 Category 1 CME credits for this seminar and will present certificates of attendance to all participants. To register for the program contact Michael Llufrio at 301-539-0872 or toll free at 1-800-492-1056.

Med Chi Semiannual Meeting

"More clearly than any other, the physician should illustrate the truth of Plato's saying, that education is a lifelong process." -From an address Sir William Osler delivered in London, July 4, 1900.

Mark your calendar!! The Semiannual Meeting will be held at the Royal Princess Hotel, Ocean City, MD, Thursday, September 13 thru Saturday, September 15, 1990. To make hotel reservations call 1-800-63-ROYAL.

Music Medicine Clearinghouse Update

During the 1989-90 year, Clearinghouse holdings increased to over 600 reprints, a large collection of books, and extensive files of other materials such as brochures from arts medicine clinics, meeting advertisements, and conference abstracts. The Clearinghouse sponsored a session at the Faculty's Annual Meeting focusing on vocal disorders of singers, and featuring speakers from the local Voice Study Group. Coordinator, Susan Harman, gave presentations at the National Flute Association annual convention, the Arts Medicine Information Management Mini-symposium, and the Special Libraries Association annual conference. She completed a chapter on the history of the field to be included in the *Textbook of Performing Arts Medicine*, forthcoming from Raven Press. The Clearinghouse is cooperating with other arts medicine organizations and the Hogeschool Nijmegen in the Netherlands to set up a national database similar to one under development in Europe. In cooperation with the Players' Committee of the Baltimore Symphony Orchestra, music medicine information is being supplied to their musicians at regular intervals.

Regional Hansen's Disease Program

The Regional Hansen's Disease Program (RHDP) provides medical services to Hansen's disease patients throughout the U.S. In order to achieve the program's goal of providing care in each patient's community, a nationwide network of over 900 physicians has been developed. Network physicians represent numerous medical specialties and have varied backgrounds, but share a common interest in managing patients with Hansen's disease. There are approximately 6000 patients with Hansen's disease in the U.S. and the RHDP has identified 3700 of these patients as currently being under treatment. To identify additional cases, RHDP requests that any Maryland physicians treating Hansen's disease patients contact RHDP.

Physicians who choose to utilize the program's resources can obtain medications, patient education materials, insensitive limb screening materials and clinical literature at no charge. Physicians with an interest in managing

patients with Hansen's disease can be placed on the program's referral list. Interested physicians should contact Mr. Larry Pfeifer, Clinical Coordinator, at 1-800-642-2477.

Medicare Claims Submission Requirements

Physicians are reminded that effective July 1, 1990, Medicare assigned claims will be denied if ICD-9 codes are incomplete or inaccurate. Unassigned claims will be referred to the HHS Inspector General for failure to submit complete or accurate ICD-9 codes.

Effective September 1, 1990, physicians must submit all Medicare claims to carriers regardless of the assignment decision. Medicare carriers will initiate a congressional mandate to profile individual physicians whose practice patterns vary significantly from peer group norms. This activity is not punitive but rather an educational effort to advise physicians of practice variations.

For questions regarding the 1990 changes in Medicare, physicians should contact carriers in their area. In Prince George's and Montgomery Counties, contact Pennsylvania Blue Cross and Blue Shield at 717-763-5700. All other physicians should contact Maryland Blue Cross/Blue Shield Provider Relations at 301-561-4057 or 301-561-4058.

AMA Address, Phone Change

The staff of the AMA will be moving into leased space in a new headquarters building in Chicago, beginning August 16, 1990. Most of the AMA staff will move over an 11-day period and all will be in their new offices by August 27. The new AMA address will be 515 North State Street, Chicago, IL 60610. The new general office phone number will be 312-464-5000.

Workers' Compensation Commission

The following letter from the Maryland State Workers' Compensation Commission was received by the Faculty's Occupational Health Committee which requested it be published in its entirety:

Dear Mr. Troisi:

Please find enclosed a copy of a "Health Insurance Claim Form." This form indicates that it has been approved by the AMA Council on Medical Services. These claim forms are being mailed to our Commission by health providers with the mistaken idea that the Commission issues the checks for payment.

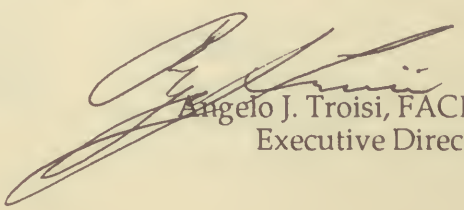
Under the Workers' Compensation Law, the employer and workers' compensation insurance carrier are responsible for the payment of the medical bill. If a health provider does not know the name of the insurance carrier, the bill is to be forwarded to the employer with the request that it be sent to the carrier for payment. If the employer does not carry workers' compensation insurance, the employer is responsible for payment.

I am bringing this problem to your attention because the Commission does not have the personnel to individually contact the health providers and advise them of the procedure or to return the "health insurance claim form." I am asking on behalf of the Commission if you will, through your newsletter, advise the physicians and/or health providers of the proper procedure for filing their claims for payment.

One final note-- if the health provider's bill is refused for payment by the insurer, they may file a claim with this Commission, Form C-51, but this is only to be filed after the bill has been refused or ignored.

Thank you for your consideration in this matter.

Very truly yours,
Lourenna E. Fisher
Secretary to the Commission.



Angelo J. Troisi, FACHE
Executive Director

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Baltimore County General Hospital: A Community, Non-Teaching, General Hospital

Florence Dietz, Robert W. Fischer, and Elmer Hoffman MD, FACS

Florence Dietz is Chairman of the Board of Trustees, BCGH; Robert W. Fischer serves as President and CEP; and Elmer Hoffman MD is Chief of the Department of Surgery.

One often hears questions about the role of a community, non-teaching, general hospital. There is particular emphasis placed on this role when the hospital is located in a city containing two major medical schools and their hospitals. There is a vital role for the well-integrated and well-organized non-teaching community hospital to perform.

This is the 25th anniversary for Baltimore County General Hospital's providing health care services to the Northwest Baltimore Metropolitan area. In this period, the hospital has seen an increase from 94 to 240 beds, all private rooms.

In our quest for medical excellence we bring to the community populations served, the advances (technological, therapeutic and research) of academic institutions while maintaining independence of thought and action. We do all of this through a well-trained, well-disciplined, well-organized medical staff which continually demonstrates its skills and excellence. We view our responsibility for the health care of the community as paramount to our existence.

During the 25 years of its existence, Baltimore County General Hospital has kept pace with all of the startling technological and therapeutic advances in medicine in order to meet our goal of providing the finest possible health care services.

The article by Dr. Goldman places emphasis on the role of our ophthalmological division in the care of diabetic retinopathy. The article by Dr. Wexler reflects the activity of the neurology division. Some of the advances in cosmetic surgery are discussed in the article by Drs. Nachlas, Papel, and Steiner (Cosmetic Surgery of the Nose and Ears), in the article by Drs. Hoffman, Klatsky and Davis (Immediate Breast Reconstruction Following Mastectomy for Malignancy), and in the article on Liposuction by the Drs. Kanter. Drs. Hoffman and Chang report their experience with the handling of Non-Parasitic Splenic Cysts. Ano-rectal Carcinoma is discussed by Dr. Berg. The article by Drs. Hoffman, Davis and Glasser deals with the results of cholecystectomy in a non-teaching community hospital, and compares those results at BCGH with the literature. They also describe the mechanics and logistics of surgical care at a non-teaching community hospital.

We sincerely hope that the articles in this issue of the *MMJ* will prove valuable to you and give you a small glimpse into the functioning of BCGH. ■

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Diabetic Retinopathy: Recent Advances to Eliminate Treatable Blindness

Edward Jay Goldman MD

From the Division of Ophthalmology, Department of Surgery, Baltimore County General Hospital. Reprints: Edward Jay Goldman MD, The Retina Center, 4000 Old Court Rd. - Ste 200, Baltimore, MD 21208.

Recent advances in the management of diabetic retinal vascular disease are of potentially great benefit to the patient. The primary care physician plays an increasingly important and responsible role in directing patients to the care they need to help preserve their sight.

In the last 20 years great progress has been made in the management of diabetic retinopathy. Previously we could only diagnose and observe the complications that cause vision loss. Now we are able to manage many of the challenging complications to avoid and often reverse the loss of sight. The American Academy of Ophthalmology recently announced as its goal the elimination of blindness from diabetes by the year 2000. This can best be done by improved communication between the various specialties. It is hoped this goal can be attained by keeping those who manage the primary care of the diabetic patient informed of the rapid progress in ophthalmology.

Pathophysiology

The initiating event of the retinal vascular changes probably is the selective loss of the capillary pericyte. This mechanism involves the influence of several biochemical routes that are abnormally active in the diabetic patient. One such pathway involves the enzyme aldose reductase, which is active inside the pericyte. The accumulation of sorbitol secondary to the chronically elevated glucose is toxic to this cell.[1] An additional proposed mechanism concerns the accumulation of advanced glycosylation end products in the vessel walls.[2] This process involves complicated nonenzymatic pathways and is related to the degree of microvascular involvement directly related to disease duration. The loss of the pericyte function causes a change in capillary permeability resulting in leakage from the decompensated retinal vascular bed leading to the development of edema in the retina.

Further damage to the microvasculature may lead to a profound progressive capillary occlusive process. The intact retinal vessels respond by allowing the rerouting of blood through existing channels. The clinical picture of dilated, irregular veins often can be seen accompanying the cotton-wool spots that signify infarction of a capillary in the nerve fiber layer of the retina (see Figure 1). The findings commonly associated with retinal vascular incompetence include intraretinal hemorrhage, exudate, and vascular sheathing.

In the eye that has suffered extensive ischemia from capillary occlusion there is a misdirected effort to revascularize the ischemic tissue with new vessels that begin to form outside the plane of the retina. This tissue behaves in a distinctly abnormal manner in comparison to the original retinal vessels. The new channels leak their contents into the vitreous cavity. The resulting interaction leads to localized fibrous traction from the altered vitreous on these vessels, which can cause a sudden hemorrhage into the eye. If the fibrin-collagen network of neovascular tissues and scar adheres to the retina, a localized traction detachment can occur with subsequent loss of vision. An example of extensive neovascularization and focal traction on the retina is shown in Figure 2.

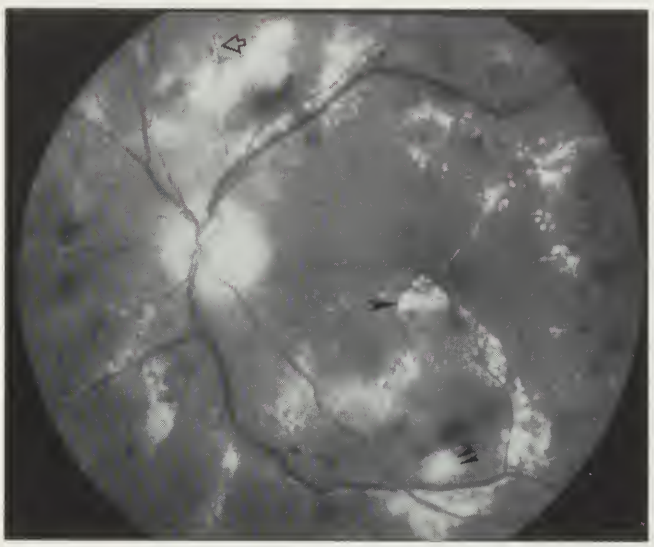


Figure 1. Severe background diabetic retinopathy. Exudates (single arrow), cotton-wool spots (double arrow), and perivascular sheathing (open arrow) indicate generalized decompensation of the retinal vessels.

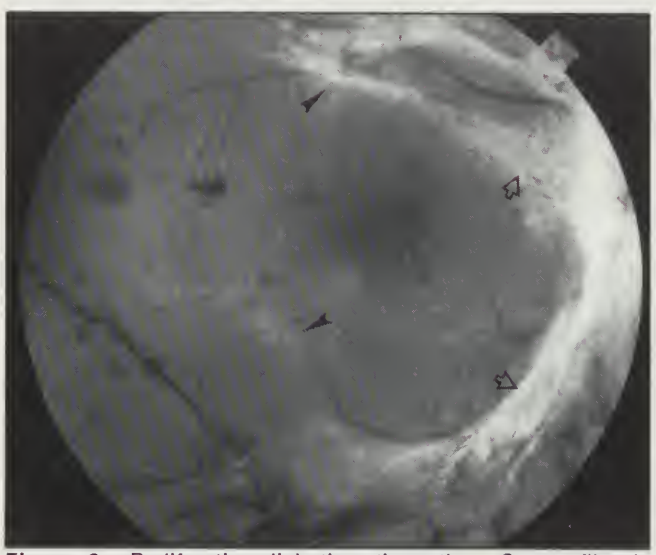


Figure 2. Proliferative diabetic retinopathy. Severe fibrotic neovascularization of the disc (open arrows) extends from the optic nerve along the vessel arcades to localized areas of traction detachment of the retina (solid arrows).

Management

The management of eyes with proliferative diabetic retinopathy has been studied carefully and standardized. The Diabetic Retinopathy Study was performed in the 1970s as a prospective, randomized, controlled trial that demonstrated the beneficial effect of panretinal photocoagulation with the argon laser for patients with various levels of proliferative retinopathy.[3] Statistics from that study provide specific guidelines to analyze and to manage the risk factors for catastrophic vision loss from proliferative diabetic retinopathy. Individual risk factors evaluated in the Diabetic Retinopathy Study and recognized to be associated with vision loss are:

Presence of new vessels
New vessels on the disc
New vessels moderate or severe
(size >1/2 disc diameter)
Vitreous hemorrhage

Figure 3 is a representation of the results of this study. The evidence overwhelmingly supports treatment of those cases where the disease has advanced to include three of these elements. Treatment of the peripheral retina with the laser results in regression of the new vessels with a subsequent reduction in the risk of a vitreous hemorrhage.

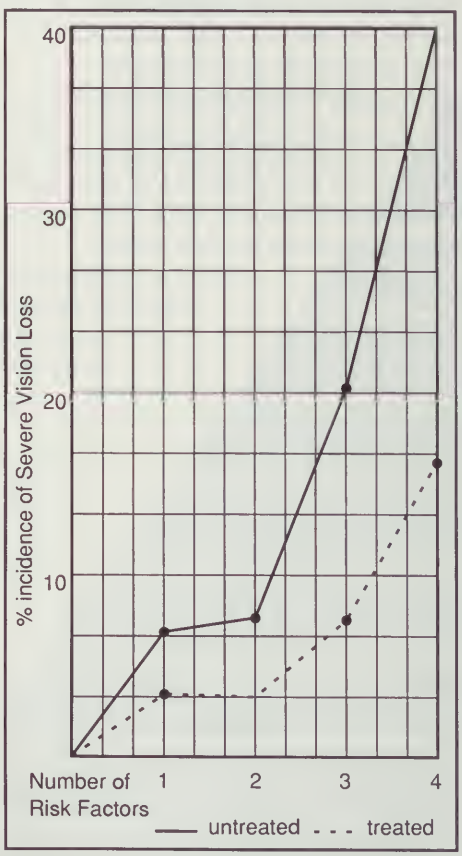


Figure 3. Two-year incidence of severe vision loss in argon laser treated vs. untreated eyes.

The risk factors previously described add up in analysis of an individual case to determine eligibility for treatment. For example, a patient with severe neovascularization of the disc automatically has three risk factors and needs photocoagulation therapy. The risk factor analysis for such an example would be: 1 (new vessels present) +1 (new vessels on the disc) +1 (new vessels severe-greater than 1/2 disc diameter in size) = 3 risk factors. According to Figure 3 there is just over a 20 percent risk of significant reduction in vision in an untreated eye with this many risk factors. After proper treatment with the laser, the risk can be reduced to less than 10 percent.

Patients who continue to suffer persistent vision loss from nonclearing vitreous hemorrhage or traction retinal detachment often benefit from surgery. With the development of vitrectomy techniques the vitreous, blood, and scar tissue can be surgically excised with a relatively good chance of stabilizing and dramatically improving the vision. The technique for pars plana vitrectomy is schematically illustrated in Figure 4.

Most insulin-dependent diabetic patients will develop some retinopathy in their lifetime. The prevalence of proliferative diabetic retinopathy increases with the duration of the disease. Of the ocular variables in patients with proliferative retinopathy, the presence of neovascularization of the disc is by far the most significant predictor of vision loss. Other variables such as hypertension, cigarette smoking, family history of diabetes, and pregnancy are frequently discussed in the epidemiology of retinopathy.

However, in considering which of our patients with proliferative changes is at highest risk, the single nonocular variable with the highest association with vision loss is the concurrent presence of renal disease as evidenced by protein in the urine.[4] High normal blood pressure (above the 90th percentile rank for age) and poor glucose control also have been associated with more rapid advancement of retinopathy.[5] None of these variables are as yet considered to have a causal relationship with diabetic retinopathy.

The effective management of background diabetic retinopathy has been the subject of numerous reports in the literature. The current guidelines for the management of background retinopathy were the subject of research published in 1985.[6] The specific findings of this randomized prospective study proved the hypothesis that focal photocoagulation reduces the extent of vision loss in properly selected patients with background diabetic retinopathy.

Useful data are available to help alert physicians to the likelihood of worsening of retinal disease. The Wisconsin Epidemiologic Study of Diabetic Retinopathy revealed that as many as 59 percent of patients normal at initial examination developed retin-opathy over a four-year period (see Table).[7,8] The same study showed that over 40 percent of patients with retinopathy experienced worsening of their disease during the four-year follow-up.

Selection of patients for laser treatment of background diabetic retinopathy has generated a great deal of scientific study. The presence of microaneurysms, exudate, focal hemorrhage, or even a documented advancement in retinopathy does not automatically indicate treatment is necessary. Individuals with background diabetic retinopathy are considered eligible for treatment only if they have what is termed "clinically significant macular edema." This specifically refers to the presence of thickening of the retina accompanying the retinal vascular decompensation described above. This edema may or may not be associated with exudate, but if edema is found within a disc diameter of the center of the macula the usefulness of treat-

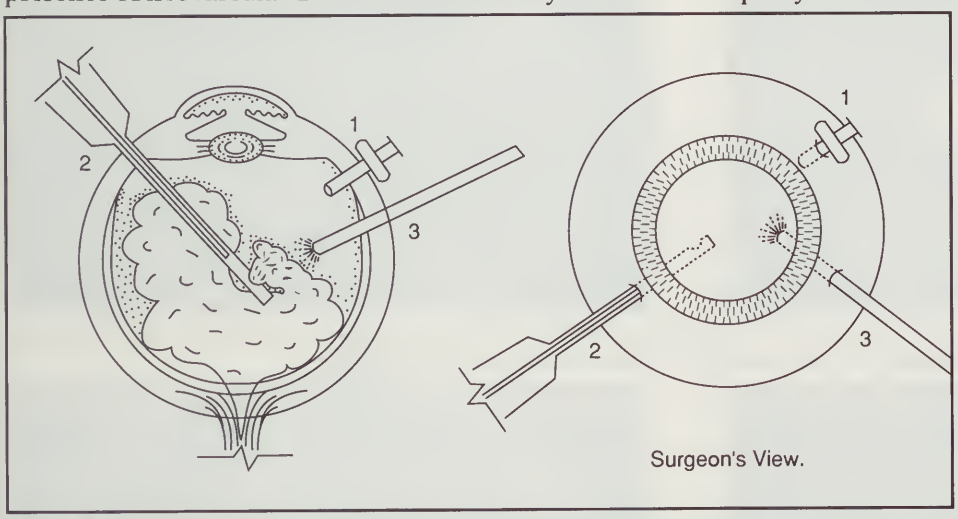


Figure 4. Pars plana vitrectomy is performed with three 1 millimeter incisions in the sclera. Port #1 allows saline to drip into the eye as the vitreous gel and hemorrhage are excised and evacuated by the guillotine action of the vitreous suction cutter in port #2. Illumination is provided through port #3.

Table. Summary of Rate of Progression of Diabetic Retinopathy over a Four-year Period

	Diagnosis of Diabetes Made at Age Less Than 30 Years	Diagnosis of Diabetes Made at Age Greater Than 30 Years	
	Insulin Dependent	Not Insulin Dependent	Insulin User
Developed Retinopathy (normal at study entry)	59%	34%	47%
Retinopathy Worsened (initially had retinopathy)	41%	25%	34%

ment with the argon laser has been proved.

The Early Treatment Diabetic Retinopathy Study (ETDRS) evaluated focal treatment of microaneurysms and other leaking sites with the argon laser.[6] It was determined that eyes with clinically significant macular edema that were treated with the laser benefited by preserving vision longer than the untreated eyes used as controls. Figure 5 summarizes data showing untreated eyes with macular edema will lose vision more rapidly and to a greater extent than eyes treated with the laser. The data prove that properly performed photocoagulation treatment reduces the edema, delays the progress of retinopathy, and preserves vision independent of the visual acuity at the time therapy is initiated.

An example of the manner in which an eye with background diabetic retinopathy is assessed will help clarify these points. Figures 6 and 7 demonstrate an eye of a 59-year-old patient known to have diabetes for

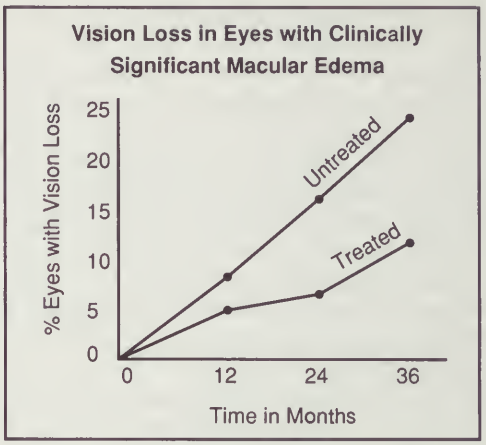
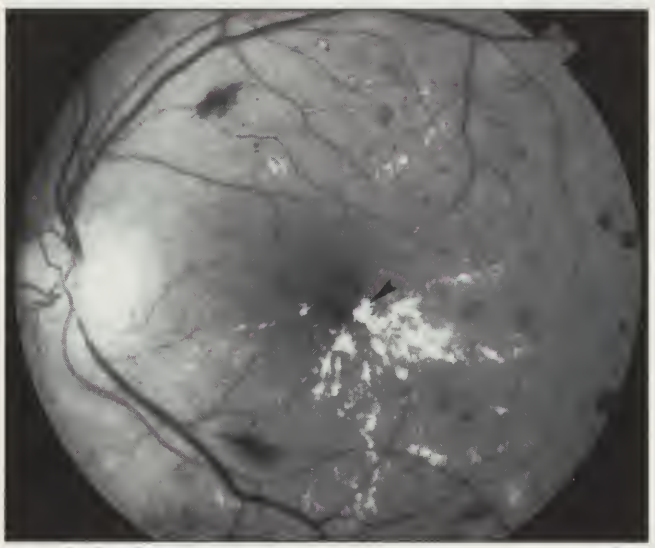


Figure 5. A summary of the results of the Early Treatment Diabetic Retinopathy Study for the treatment of background diabetic retinopathy.



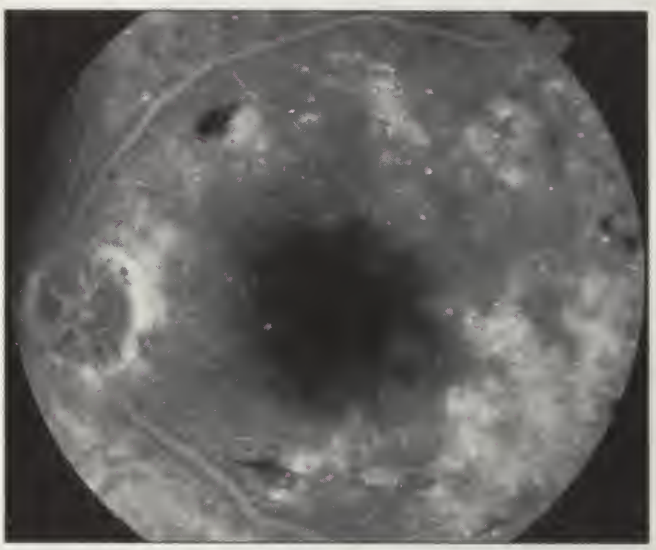


Figure 6a (left) and 6b (right). The preinjection photograph (left) shows extensive exudate (arrow) bordering on the fovea. The angiogram (right) shows focal hyperfluorescence from the dot-like microaneurysms and the resulting diffuse leakage.



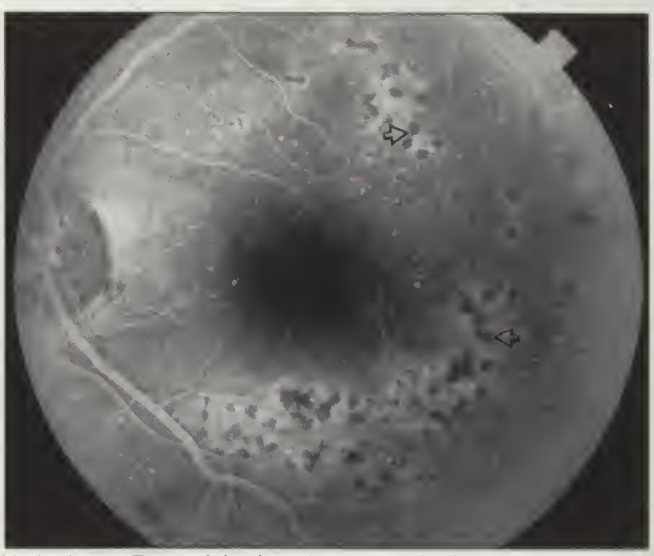


Figure 7a (left) and 7b (right). The same eye 3 months after treatment with the laser. The preinjection photograph (left) shows the exudate is remarkably less in comparison to Figure 6. The angiogram (right) shows the photocoagulation scars (arrows).

only four months. In addition to the leakage seen on the angiogram, the patient was found on examination to have clinically significant macular edema with vision reduced to 20/50. The eye was treated with the argon laser, and at the time of the three-month follow-up the edema was gone and the eye saw 20/30.

Summary

Every patient with diabetes is at risk for the development of macular edema or neovascularization and needs to be screened properly. Even if there is no ocular history or complaint, there may be significant retinopathy. The physician's knowledge of the factors placing eyes at risk as well as regular, careful evaluations and management of the development of significant changes constitutes the best way to retard the progressive loss of vision associated with diabetic retinopathy.

To avoid loss of vision, all patients with diabetes should have a complete retinal evaluation at least once a year starting at the time the disease is diagnosed.

References

1. Cogan DC. Aldose reductase and complications of diabetes. Ann Intern Med 1984;101:82-91.
2. Brownlee M, Cerami A, Vlassara H. Advanced glycosylation end products in tissue and the biochemical basis of diabetic complications. N Engl J Med 1988;318:1315-21.
3. The Diabetic Retinopathy Study Research Group. Photocoagulation treatment of proliferative diabetic retinopathy: The second report of the diabetic retinopathy study findings. Ophthalmology 1978;85:82-106.
4. The Diabetic Retinopathy Study Research Group. Factors influencing the development of visual loss in advanced diabetic retinopathy: Diabetic retinopathy study report 10. Invest Ophthalmol Vis Sci 1985;26:983.
5. Chase HP, Garg SK, Jackson WE et al. Blood pressure and retinopathy in type I diabetes. Ophthalmology 1990;97(2):155-59.
6. Early Treatment Diabetic Retinopathy Study Research Group. Report 1: Photocoagulation for diabetic macular edema. Arch Ophthalmol 1985;103:1796-1806.
7. Klein R, Klein BEK, Moss SE et al. The Wisconsin epidemiologic study of diabetic retinopathy, report IX: Four year incidence and progression of diabetic retinopathy when age at diagnosis is less than 30 years. Arch Ophthalmol 1989;107:237-43.
8. Klein R, Klein BEK, Moss SE et al. The Wisconsin epidemiologic study of diabetic retinopathy, report X: Four year incidence and progression of diabetic retinopathy when age at diagnosis is 30 years or more. Arch Ophthalmol 1989;107:244-49.

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EUGENE BRAUNWALD, M.D.
Chief, Dept. of Medicine
Brigham and Woman's Hospital
Boston, Massachusetts

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Advances in the Electrodiagnosis of Nerve Injury

Ira Wexler PhD, MD

Dr. Wexler is Chief of EMG Laboratory, J.L. Kernan Hospital, Baltimore.

Needle electrode nerve conduction recording is a powerful complement to the traditional techniques of EMG sampling of muscle and surface motor conduction measurements.

Electromyography (EMG) of muscle and motor nerve velocity measurements (NCM) have long been the methods most commonly used to assess nerve and muscle function in patients. Both techniques have shortcomings, and over the past decade newer, more accurate recording techniques have been developed for directly measuring conduction.

Electromyography

In EMG studies, long concentric electrodes are inserted into muscles to study their electrical discharge characteristics. Not only is this uncomfortable, but also the diagnostic information from such studies can be disappointingly small. In lumbosacral disc disease, for example, in the absence of focal neurological signs such as muscular weakness, atrophy, or asymmetrical deep tendon jerks the EMG can be expected to be positive in only about half the cases.[1,2] This low yield in part is the consequence of reinnervation of denervated muscle fibers by sprouts from adjacent uninjured motor nerve fibers. Denervation activity in the nerve root's myotome therefore dies out with time, and the EMG may revert to normal in muscles served by the previously injured nerve.[2]

Motor Conduction Measurements

In NCM, a critical measurement is the time it takes for a nerve action potential to travel to a muscle from two widely separated points of stimulation along the nerve. The time of conduction between these two points is then divided into the segment's length to give motor velocity. Since such calculations measure conduction exclusively over motor nerves (and only over the largest motor fibers) and since in a diseased nerve some motor fibers may continue to conduct normally while many fail to conduct at all, one may find normal or close to normal conduction velocities in nerves that nonetheless have suffered an appreciable amount of axon injury or demyelination.[3]

Near-nerve Needle Electrode Conduction Measurements

Because many painful syndromes seen in clinical medicine in-

volve damaged sensory nerve fibers, accurate measurement of conduction in sensory or mixed motor-sensory nerves is important. It has been traditional to measure conduction in sensory nerves by using surface electrodes taped to the skin. In carpal tunnel syndrome, for example, the antidromic sensory potential is measured by a pair of ring electrodes around the index finger while the median nerve is stimulated at the wrist.

Such surface measurements tend to miss the temporal dispersion and small peaks in the action potential that arise when conduction in some of the nerve's fibers fall below normal. When near-nerve needle electrode recording is used, however, such changes are detectable.[4,5] This technique requires that the skin overlying the nerve first be sterilized. Sterile, monopolar teflon-insulated stainless steel electrodes are then inserted percutaneously down to the immediate vicinity of the nerve. The two electrodes, one active and the other indifferent, remain fixed in this location while electrical stimulation of the nerve proximal or distal to this recording site is done. Because of the very low amplitude of the nerve action potentials (about 10 to 20 microvolts) and unavoidable electrical noise from adjacent muscle, several hundred sequential stimulations of the nerve have to be done while computer-assisted online filtering of the data is carried out.

Figure 1 shows the benefit of using needle electrodes to measure the peroneal nerve potential in a patient with diabetic neuropathy. The surface recording of the potential, made at the same site as the needle electrodes, shows a low amplitude, prolonged potential whose velocity falls within the lower limit of normal for this patient's age. The needle recorded potential, in contrast, shows not only low amplitude but also the multiple subpeaks characteristic of a nerve undergoing axonal degeneration and demyelination.

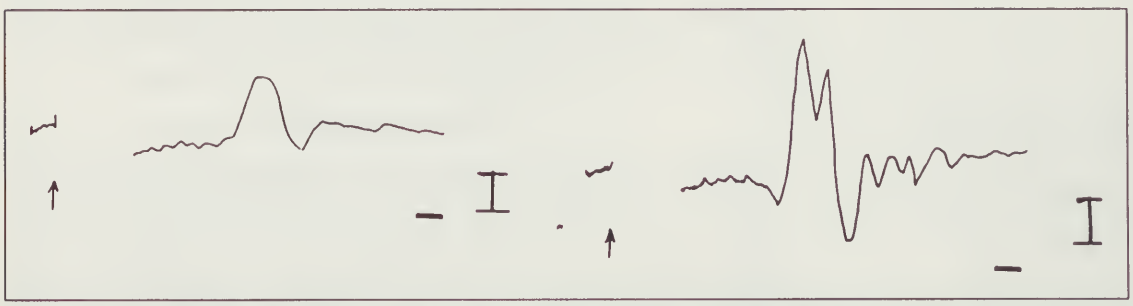


Figure 1. Surface (left) and needle electrode (right) recordings from the same site over the superficial peroneal nerve. Nerve damage characterized by the appearance of multiple subpeaks in the action potential is seen only in the needle electrode recording. Calibration = 1 msec, 2 microV.

Needle Electrode SEPs

Needle-electrode recording techniques also can be applied to the study of cervical or lumbosacral nerve root disease. In these anatomic regions, longer (25 mm, cervical; 37 mm, lumbar) needle electrodes are inserted between adjacent vertebrae and recordings are made of the electrode spinal evoked potentials (SEP) elicited by median or ulnar nerve stimulation in the upper extremities, or sciatic, tibial or peroneal nerve stimulation in the lower. In "normal" individuals, the SEP thus evoked look like the smooth action potentials obtained in peripheral nerve recordings; and like those recordings, SEP will show temporal dispersion with the appearance of subpeaks when axon injury and demyelination has occurred.

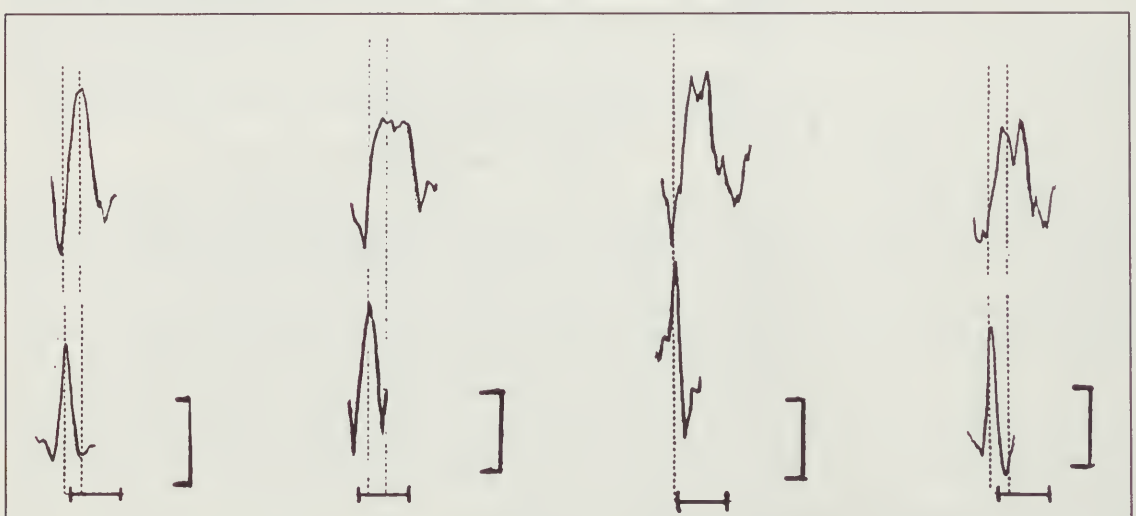


Figure 2. Cervical (upper tracings) and brachial plexus SEPs (lower tracings) recorded with needle electrodes. The left pair is from a normal individual, the next three pairs are from patients with cervical root disease. Slowing of conduction over compressed nerve roots gives rise to blunted, prolonged, and multipeaked SEPs on the affected side. Calibration = 5 msec, 1 microV.

Figure 2 shows SEP recordings from the C-6 vertebral interspace in a normal patient and in three patients with confirmed cervical root disease. Slowed conduction over the nerve roots of the latter is indicated by the widened appearance of the SEP, with multiple inflections at its peak.

In Figure 3, recordings from the T-12-L-1 interspace in three

patients with lumbosacral nerve root compression are shown. On the affected side, as a consequence of slowed conduction and axonal degeneration of some nerve root fibers, SEPs exhibit low amplitude with a fragmented, irregular appearance.

Summary

Needle electrode nerve conduction recording is a powerful complement to the traditional techniques of EMG sampling of muscle and surface motor conduction measurements. It enables the electromyographer to assess much more accurately subtle changes in peripheral nerve and nerve root conduction that previously could have gone undetected.

References

1. Goodgold J, Eberstein A. Electrodiagnosis in Neuromuscular Diseases, Second ed. Baltimore: Williams and Wilkins, 1972:197-210;250-56.

2. Wilbourn A. The value and limitations of electromyographic examination in the diagnosis of lumbosacral radiculopathy. In Hardy, Jr, RW ed. Seminars in Neurological Surgery. New York: Raven Press, 1982:65-110.

3. Stewart JD. Focal Peripheral Neuropathies. pp. 38-56, New York: Elsevier, 1987:38-56.

4. Kimura J. Electrodiagnosis in Diseases of Nerve and Muscle: Principles and Practice. Philadelphia: F.A. Davis, 1983.

5. Hagbarth KE. Microelectrode exploration of human nerves: Physiological and clinical implications. JR Soc Med 1983;76:7-15.

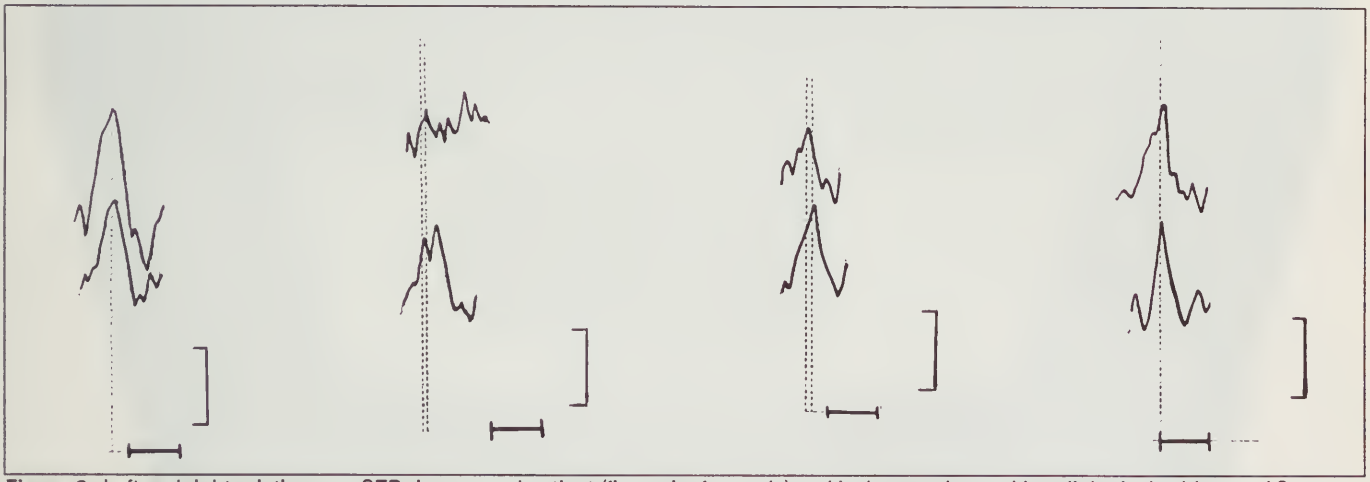
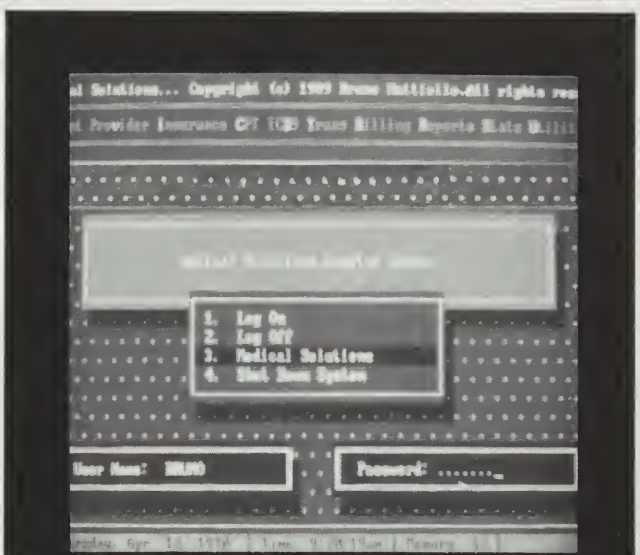


Figure 3. Left and right sciatic nerve SEPs in a normal patient (first pair of records) and in three patients with radiological evidence of S-1 nerve root compression (last three pairs of records). Fragmented SEPs with low amplitude are seen on the side with the compressed nerve root. Calibration = 5 msec, 1 microV.




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Functional and Cosmetic Surgery of Nose and Ear Deformities in Children and Adolescents

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Because congenital and traumatic disorders of the nose and ear in children and adolescents may be the result of many different factors, each patient must be dealt with on an individual basis.

Whenever possible, corrective surgery of the nose should be carried out at an early stage of the pathologic process. Single-stage septorhinoplasty, as contrasted with staged surgical procedures such as separate septoplasty and rhinoplasty, is recommended as the procedure of choice.

The anatomy, embryology, and common deformities of the auricle are examined, with emphasis on prominent ear deformities. Surgery for this type of deformity is usually recommended at age five to six years.

Nose Deformities

The presence of nasal deformity and functional abnormality may be caused by many factors, including trauma, congenital aberration, infection, drug abuse, or neoplasm. Developmental anomalies may arise from embryologic changes or disturbances beginning early in fetal life, for example, the hare-lip-cleft palate nasal deformity (Figure 1). Other deformities may occur during early fetal life due to drug exposure, nutritional deficiencies, or other intrauterine trauma. Intrauterine nasal trauma may occur from the third or fourth month of gestation, at which time the nasal capsule is well formed, until term. Injuries to the nose in utero, during birth, or in early infancy may escape immediate attention, yet may be manifested with significant nasal deformity and dysfunction in later life.

One common deformity of the nose seen in the neonatal period is subluxaton of the nasal septum during delivery. These injuries are more frequent in primiparae than in multiparae, and particularly so in long, difficult labors. Most commonly there is flattening and lateral displacement of the nose associated with

contralateral displacement of the base of the septum from its vomerine groove (Figure 2). This is not a fracture but a dislocation. If uncorrected, as the septum grows it will deviate at its caudal end and luxate from the maxillary crest, causing functional obstruction. This deformity is recognizable in many adults, with the ususal history of no known nasal trauma. What appears to be a minor injury in the neonatal period may have significant clinical importance in future years. When recognized early, this type of birth injury should be corrected with a simple closed reduction, often performed at bedside with a small amount of local anesthetic.



Figure 1. Cleft palate nasal deformity



Figure 2. Birth trauma, dislocated septum

Nasal trauma is one of the most common injuries known to mankind. Over 70 percent of all nasal injuries involve the cartilaginous elements of the nasal structure. This includes the cartilagenous septum and the paired upper and lower lateral cartilages that define the shape and function of the lower two-thirds of the nose. Deformities or fractures of the cartilagenous elements are not revealed by standard nasal radiographs. Physical examination is frequently much more revealing and accurate than radiographic examination.

Infants and children are subjected to many nasal injuries during normal play and athletics. During their "growing up" the ossification centers within the nose are very active and sensitive to trauma. Even a clinically minor incident to these areas may excite these centers in a dynamic way and alter the growth potential, leading to future deformity. Injury early in life may lead to acceleration, deceleration, or arrest of bony nasal growth centers. An example may be the adult with a nose of infantile size and characteristics. Asymmetry of the nasal bones without history of known trauma is another frequent occurence.

Infection of the nasal septum at an early age may cause complete destruction of the cartilagenous septum leading to subsequent maldevelopment presenting as an infantile nose or saddle nose with functional collapse and airway obstruction. The presence of a septal hematoma or abcess must be treated immediately to prevent these sequelae in children (Figure 3).



Figure 3. Septal hematoma

In recent years the use of cocaine in the adolescent population has produced a significant number of septal perforations.[1] Treatment of these perforations is extremely difficult with respect to substance abuse therapy and surgical reconstruction. Reconstruction cannot begin until the substance abuse has ceased for several months to a year. The long-term sequelae of unrepaired cocain-induced septal perforations are similar to loss of the septum secondary to untreated abcess or hematoma.

Nasal and septal deformities secondary to trauma may be minor and asymptomatic or severe and completely obstructing. There is a subgroup of patients who seem to tolerate severe deformities with airway obstruction, feeling "it doesn't bother me." This is often a case of long-term accommodation to symptoms rather than normal nasal function. Long-term severe nasal obstruction has been linked to definite physiological damage such as pulmonary hypertension and sleep apnea syndromes.[2]

Surgical correction of marked septal and nasal deformities in children and adolescents may prevent the sequelae of severe nasal airway obstruction and disfigurement. The surgery may be performed at any age as long as there is respect for the key growth centers of the nose and the approach is conservative. Combined septal and corrective rhinoplastic surgery in the case of deviation of the septum and bony pyramid is usually indicated because the mobilized pyramid heals in the direction of the septal line. In most cases of twisted noses, the bony pyramid will not heal straight unless the underlying septal injuries are corrected at the same time. Usually there is no need for a staged approach to the twisted nose. At one time it was common to undergo a septoplasty and then return for a secondary rhinoplasty with osteotomies at a later date. This is no longer the standard of care. The combined techniques of septoplasty and rhinoplasty are intermingled in the treatment of the complex nasal injury and should be combined for the best results.

Past guidelines for aesthetic rhinoplasty have dictated that male patients should be 18 years old, and females 16 before undergoing corrective rhinoplasty. Recent evidence has shown that if conservative techniques are used, surgery for adolescents with severe cosmetic deformities can be performed without unwanted sequelae.[3] The psychologic benefits afforded during or soon after puberty seem to outweigh the risks of disturbing growth centers. It should be emphasized that early rhinoplasty is recommended only in adolescents with severe cosmetic deformities that may have significant effect on psychological development.

Plastic Surgery of the Auricle

Congenital deformities of the pinna range from simple preauricular pits to total absence (anotia). The first evidence of the otic structure is seen in the three-week embryo and appears as a placode. This neuroectoderm will become the otic depression and then the otocyst, eventually forming the cochlear structures.

The auricle originates from first and second branchial arches around the first branchial groove, first seen in the fifth week of development. Each arch develops three hillocks that later fuse. After the eighth embryonic week, the proportion of second arch mesenchyme increases in relation to the first arch and makes a greater contribution to the total pinna. The second arch contributes the helix, antihelix, scapha, antitragus, and lobule. The first arch contributes the anterior crus of the helix and the tragus. Thus, the most common deformities of the auricle result from second arch aberrations. A physician should recognize that auricular deformities, especially microtia, may be associated with abnormalities of other organ systems developing in the same embryologic period.

The most common abnormalities of the pinna referred to a facial plastic surgeon involve protruding ears. This may be secondary to unfurling of the antihelical fold, excess depth of the conchal bowl, or a combination of features. The superior crus of the antihelix, which forms the superior border of the triangular fossa, may be notably absent. The term protruding ear is distinct from the description "lop ear," which implies an auricle hanging limply from its attachment.[4] Most protruding ears maintain normal size and position with respect to facial analysis (Figure 4.)

Constricted ears, or cup ears, have as chief characteristics lidding of the helix, deficiency of the scapha, and/or triangular fossa. This leads to an ear that may be smaller than normal, protruding, and possibly low



Figure 4. Prominent ears



Figure 5. Constricted ear



Figure 6. Microtia

set. The typical description of a constricted ear is that it appears to be closed by a drawstring[5] (Figure 5).

Microtia deformities commonly involve abnormalities in position, size, configuration, and canal atresia. Fifty percent are associated with other congenital anomolies. Thirty percent are associated with recognizable syndromes such as Treacher-Collins and Goldenhar's. The only recognizable structure in a microtic auricle may be the lobule. (Figure 6.) Reconstruction of microtia deformities usually starts at age six with a three- or four-stage procedure involving costal cartilage grafts, tragus reconstruction, and pinna elevation. Over the past 20 years surgical techniques for this deformity have become very sophisticated and reliable. The surgeon must work very carefully with an otologist so that canal atresia and middle ear deformities can be addressed at the appropriate time. Anotia is an extreme and rare deformity with no recognizable auricular structures on the affected side. Atresia of the canal and middle ear deformities are expected.

Most children presenting for correction of protruding ears are motivated to proceed with elective surgery. They may have been the subject of intense teasing at school by their peers, and psychological stress may be apparent.[6] In general, surgery is recommended before the child begins elementary school (age six or seven years). Increasingly, adults with prominent ear deformities are presenting for elective correction.

Although surgical correction of anotia and microtia require a complex, multistaged procedure, correction of prominent ears is readily achieved by a single-stage operation. Techniques dealing with protruding ears have been described since the mid-nineteenth century, when surgeons treated this deformity by excision of skin and/or auricular cartilage in an attempt to reduce the size of the ear.[7] During the twentieth century, hundreds of techniques have been described with varied degrees of sophistication to enable the facial plastic surgeon to produce a natural appearing ear. These techniques are based on the observation by Luckett[8] in 1910 that the primary deformity in protruding ears is the absence of the antihelical fold.

Today there are two dominant methods of correcting the prominent ear deformity. Within each method exists numerous variations. One method involves the careful placement of mattress sutures in the auricular cartilage to create an antihelical fold and reduce projection, as first described by Mustarde[9] in 1963. The second group of procedures is based on the principle of reforming the antihelix by molding the cartilage, either with a diamond burr or dermabrader, until a natural appearing fold is constructed from cut cartilage edges. These cartilage-splitting techniques offer the advantage of being independent of suture placement for long-term results. The cartilage-splitting otoplasty that involves this sculpturing technique was described in 1970 by Nachlas et al.[10] and is derived from an earlier technique reported by Cloutier[11] (Figure 7a and b).

Whichever technique is used, the goal of all otoplasty procedures is to produce a natural, smooth-appearing ear with normal contours and angles. This is usually accomplished in an outpatient setting with minimal morbidity.

Potential complications of elective otoplasty include hematoma and perichondritis, which can lead to cartilage loss and severe auricular deformity. A persistent protruding ear can occur due to inadaquate cartilage preparation and/or skin excision. If the cauda helicis is not excised or repositioned, the inferior helix and lobule may show persistent protrusion in relation to the repositioned auricle.

Summary

Congenital and traumatic disorders of the nose and ear in children and adolescents must be dealt with on an individual basis. The indications for surgical correction must be guided by functional, psychologic, and aesthetic considerations.

References

1. Deutsch HL, Millard DR. A new cocaine abuse complex: Involvement of nose, septum, palate and pharynx. Arch Otolaryngol Head Neck Surg 1989;115:235-37.
2. Cassisi NJ, Biller HF, Ogura JH. Changes in arterial oxygen tension and pulmonary mechanics with use of posterior packing in epistaxis. Laryngoscope 1971;81:1261-66.
3. Fodor PB: Aesthetic rhinoplasty in early adolescence. Aesthetic Plast Surg 1988;12:207-16.
4. Musgrave RH. A variation on the correction of the congenital lop ear. Plast Reconstr Surg 1966;37:394-98.
5. Cosman B. The constricted ear. Clin Plast Surg 1978;5:389-400.
6. Brent B. The correction of microtia with autogenous cartilage grafts: The classic deformity. Plast Reconstr Surg 1980; 66:1-22.
7. Ely ET. An operation for prominence of the auricles. Arch Ophthalmol Otolaryngol 1881;10:97.
8. Luckett WH. A new operation for prominent ears based on the anatomy of the deformities. Surg Gynecol Obstet 1910;10:635-37.
9. Mustarde JC. The correction of prominent ears using simple mattress sutures. Br J Plast Surg 1963;16:170.
10. Nachlas NE, Duncan D, Trail M. Otoplasty. Arch Otolaryngol 1970;91:44-49.
11. Cloutier AM: Correction of outstanding ears. Plast Reconstr Surg 1961;28:412-416.

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Figure 7A. Patient with prominent ears



Figure 7B. Patient 18 years after otoplasty with cartilage sculpturing technique

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Immediate Reconstruction after Mastectomy: Team Approach

Elmer Hoffman MD, FACS; Stanley A. Klatsky MD, FACS; and Alan S. Davis MD, FACS

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A review of 198 cases of breast reconstruction done at the time of mastectomy for carcinoma of the breast shows an extremely low morbidity. The technique of using a tissue-expander prosthesis enables immediate breast reconstruction without any fear of impairing prognosis, of spreading disease, or of impeding adjuvant therapy.

A surgeon doing breast cancer surgery must offer every woman hope of restoration of her body as well as a positive prognosis. The surgeon also must take the initiative in recommending breast reconstruction, not waiting for the patient to broach the subject.

Mastectomy produces marked psychological changes regardless of the woman's age. These changes are shown in Table 1.[1-18]

Immediate breast reconstruction following mastectomy for cancer gives the opportunity to alter or block these psychological changes with the results shown in Table 2.[1-18]

Immediate breast reconstruction should be offered to every woman facing a mastectomy as part of the surgeon's first discussion of the diagnosis and proposed treatment. If this is done, the surgeon will see an amazing change in the patient's attitude from negative to positive.

The surgeon must be committed to seeing the woman achieve restoration of body form. He must believe there is no need for such statements as: "Getting used to the loss," "Wait to see if there is spread," "Be happy you are alive, forget reconstruction," "Reconstruction may interfere with follow up and discovery of recurrences," or "If we wait for later reconstruction, the patient will not look for perfection."

Team Effort

The use of immediate breast reconstruction at the time of mastectomy for cancer must be a team effort undertaken by the breast ablative surgeon and the plastic reconstructive surgeon.

This team effort requires complete dedication to the principles of helping the patient overcome her psychological difficulties, to the ablation of malignancy, and to immediate reconstruction of form. This requires the meshing of operating schedules, office hours, and office visits for two very busy operating surgeons. There must be cooperation by the Operating Room Nursing Supervisor and the Operating Room Scheduling Office. This con-

cept also mandates complete and separate consultative patient discussions by both the ablative and the plastic reconstructive surgeon. These discussions include the diagnosis, the modalities of treatment available, with advantages and disadvantages of each, and the availability of immediate breast reconstruction.

During these discussions, the patient may experience a psychological turnaround from negative to positive, once reconstruction is mentioned. Often the idea of anatomical destruction and not the idea of malignancy produces the psychological devastation of the patient. It is important to refocus the patient's emphasis on deformity and death toward resumption of living with an anatomically complete body.

With the fall from favor of the true Halstedian radical mastectomy and the increasing use of the modified mastectomy, the opportunity to perform immediate submuscular implantation of prostheses presented itself. The team concept was developed and refined at the Baltimore County General Hospital approximately five years ago with the placement of permanent prostheses in selected cases. With the advent of the Rhadovan Tissue Expander Device[21] its logical application to breast implantations followed.

We embarked upon a team concept program of immediate breast reconstruction after modified mastectomy for cancer using the Rhadovan Tissue Expander placed submuscularly.[7-10] A strict protocol and team approach was adopted. The mastectomy surgery was done by the ablative surgeon and the plastic reconstructive surgery by the plastic surgeon. None of the surgery was done by Assistants. Strict rules of separate prepping, draping, gowning, gloving, and separate instrumentation were put in place for the two parts of the surgery. The same team concept principles were used for the bilateral cases when we enlarged the scope of the series.

Table 1. Psychological Changes [1-18]

1. Perceived body image alteration - asymmetry, body deformity
2. Diminished sexual attractiveness and desirability
3. Changed femininity
4. Mood changes
   Depression
   Lowered self-esteem
5. Impaired social and occupational function
6. Fear of recurrences
7. Fear of development of cancer of other breast
8. Guilt feelings caused by attitude of those around patient

Table 2. Results of Immediate Reconstruction [1-18]

1. Increase in psychological well-being
   Mood
   Body image perception
   Sexual attractiveness
2. Rapid return to normal life
3. Reduces fear of recurrence
4. Eliminates guilt feelings caused by others

Surgical Procedure

At surgery, the plastic surgeon and ablative surgeon outline the skin incision. The breast surgeon then performs the mastectomy, taking care to keep the fascia of the serratus anterior intact. In the modified radical mastectomy portion, the axillary contents are meticulously dissected to preserve nerves and vessels to the pectoralis major and minor muscles as well as to the latissimus dorsi and serratus anterior muscles. Following the removal of the specimen, the plastic surgeon then implants the tissue expander beneath the pectoralis muscles. The wound is then closed by the plastic surgeon over the appropriate drainage system. The plastic and breast surgeons examine the patient on each postoperative day with careful attention to the skin flaps. The team approach is paramount throughout the postoperative follow-up.

The expander is inflated by injecting saline through the skin into the valve, beginning in approximately three to four weeks and then at weekly intervals. After approximately six expansions, surgery is scheduled. At this operation, the expander is removed and the permanent prosthesis is inserted.

Questions

A number of concerns and questions are raised by patients and physicians. These are listed in Table 3 and must be answered by the ablative surgeon.

There is no experimental or clinical evidence that the natural history of carcinoma of the breast is altered.[1,2,4,5,19-26]

New tissue planes are not opened at the time of mastectomy. Under the team concept, there is a complete skin repreparation, change of drapes, gowns, gloves, and instruments, and, in addition, a change of surgeons. Submuscular placement has not had any effect on the development of local recurrence (superficial location) or regional recurrence (axillary or supraclavicular areas).

There is no compromise in the performance of mas-

Table 3. Questions

1. Is the natural history of the disease altered by placement of the prosthesis?
2. Are new tissue planes opened at the time of mastectomy?
3. Is performance of mastectomy comprimised when planning immediate reconstruction?
4. Does reconstruction interfere with detection of local recurrence?
5. Does the presence of the prosthesis interfere with treatment of the local recurrence?
6. Does reconstruction impede or interfere with administration of chemotherapy or irradiation?
7. Does chemotherapy or radiotherapy harm implants?
8. Does the implant alter or impair immune response?
9. Does the implant induce malignancy?
10. Does delay between diagnosis and mastectomy-reconstruction alter disease prognosis?
11. Does delay in replacement of the expander with a permanent prosthesis produce any ill effects?

tectomy when there is a planned immediate reconstructive procedure. With our team concept, we have a completely integrated yet separated procedure. The ablative surgeon performs the mastectomy with no concern about plastic reconstruction. The plastic surgeon enters the operation only after the completion of the mastectomy. The ablative surgeon should not do the implant procedure because he might be influenced in his performance of the mastectomy.

Immediate breast reconstruction does not mask recurrences. The incidence of isolated local recurrence is less than 7 percent.[27-33] Gilliland [29,34] found that a mean of 6.2 years elapsed before chest wall recurrence was seen in Stage I patients, a mean of 4.3 years for Stage II disease, and a mean of 2.1 years for Stage III disease. If Stage I and II patients are treated after the recurrence, the length of survival averages 7.2 years and 6.0 years for Stage I and II, respectively. Another study[20] found a 1.5 percent recurrence of disease in the chest wall in patients of all stages 2 years after mastectomy. Bedwinek[27] found a 6.4 percent evidence of chest wall recurrence in 3 to 12 years after mastectomy in patients of all stages. When local recurrences occur, they are isolated in the chest wall, primarily in the scar area from 61[29] to 82[27] percent of the time.

All methods of treatment (surgery, radiation, or chemotherapy) may be used with an implant in position.[1,2,4,5,11,35] Since these recurrences are, for the most part, in the scar and appear within two years or longer of mastectomy, the reconstruction would long since have been completed. Evidence indicates that local and distal metastases become manifest at the same time interval after mastectomy regardless of treatment modality. If anything, the submuscular implant, by its very location, will push things forward and make detection of the recurrence easier.

The presence of a prosthesis does not interfere with the treatment of local recurrence. The local recurrence is superficial to the submuscular pocket and may be excised easily if that is to be the method of therapy. The literature indicates that chemotherapy produces no increase in infections, loss of prostheses, or wound separations.[1-3,5,6,17,20] If the treatment is radiotherapy, the prosthesis can tolerate up to 10,000 rads without any effect on it. The absorption of radiation by the implant is almost the same as by water.[1-3,5,6]

Breast reconstruction does not impede or interfere with the administration of chemotherapy or radiation. Saline expander injections can be completed during the intervals between courses of chemotherapy. The chemotherapy can start as soon as three weeks after surgery, if the wound is healed.[1-3,5,6,17,20] The permanent implant can be placed during a free interval between chemotherapy courses. The presence of the implant should not interfere with any radiation therapy, which can begin as early as three weeks after surgery if wound healing has occurred.[6,20]

The only difficulty we found is the opinion of some medical-oncological consultants who want to work independently of us and want their year of chemotherapy to pass before advising reconstruction. This is a direct result of some of the ancient adages quoted earlier in the paper.

There is no evidence, in the literature, that the presence of a breast implant alters or impairs immune response.[5,6,19,20]

There is no evidence of the development of carcinoma or sarcoma, by the implant in animals higher in the scale than a rat.[5,20]

The literature does not indicate any evidence of any effect on prognosis or on the disease-free interval by a delay of as long as six weeks between the time of an incisional or excisional biopsy and the definitive mastectomy.

It has been our experience that a delay in the replacement of the expander by a permanent prosthesis does not produce any ill effects. We had several patients who developed intercurrent illnesses, causing delay in the placement of a permanent prosthesis. Our longest delay was 1.5 years between the time of mastectomy and placement of the expander and the replacement with a permanent prosthesis. This was secondary to intercurrent cardiac and renal obliterative vascular disease and subsequent surgery prior to replacement of the expander.

Criteria for Immediate Reconstruction

We will perform the procedure if the tumor is no larger than 5 cm and if there are no restrictions in terms of location of quadrant of the tumor. There must be a confirmed permanent section report of the diagnosis of carcinoma. Palpable axillary nodes are not a deterrent since there is a 20 to 30 percent false-negative and false-positive result when one compares clinical and pathological findings. Distant disease should not preclude the use of an implant since it will not interfere with adjuvant therapy.

Advantages and Disadvantages of Immediate Reconstruction

Tables 4 and 5 list the authors' view on the advantages and disadvantages of immediate breast reconstruction.

Morbidity of Immediate Reconstruction

In advocating immediate breast reconstruction at the time of mastectomy, one must be aware of the possible complications that ensue upon this procedure. Morbidity in our series of 198 breast reconstructions is shown in Table 6. Three cases were classified as capsular contraction. These were demonstrated by examination of the patient and not by symptomatology on the part of the patient. These were easily released, and the patients had no further difficulty.

Six deflations occurred, all of them in the temporary expander phase. When these were replaced, it was seen that the plastic connection to the valve had

separated on two occasions. On three occasions, the seam between the plastic extension coming off the expander had leaked. On one occasion a needle puncture had occurred (one of our earliest cases in this series).

In two cases, there was a wound separation with exposure of the implant. This was not associated with any marginal slough or infection.

In four cases a marginal slough occurred with subsequent exposure of the implant. These were removed, the sloughed margin excised, and expander reinserted. There was no subsequent difficulty in the further course of these patients. In two cases, either the prosthesis or the expander was removed. In one case, the prosthesis was removed following the development of a huge hematoma over the chest wall as a result of a fall causing chest wall trauma and a fractured humerus.

In one case, the patient continued to complain of pain over the prosthesis. Whent it was removed, the patient's pain disappeared. In no other cases was pain a factor in prosthetic results.

There were six cases of infection or a 3 percent incidence. The most significant factor that was turned up in the review of these cases was that five of the six had had some type of respiratory tract infection within six weeks prior to the discovery of an infection around the implant. Two patients had had actual pneumonia. One patient had a tracheitis. Two patients had suffered a moderately severe upper respiratory infection or cold. If this fact is supported by other investigators, we might consider requiring the patient to take prophylactic antibiotics at development of any upper respiratory tract infection. Cultures taken of the abscess cavity at the time of surgery revealed gram positive cocci in four of the five cases in which culture was obtained.

When bilateral mastectomy was carried out, it was done with a synchronous two-team approach. The estimated time added to the two-team synchronous bilateral procedure over the unilateral was approximately 30 to 45 minutes. The length of stay in the hospital was approximately four days for both the unilateral and bilateral mastectomy-reconstruction cases. This is essentially the same as if the patient had had mastectomy without reconstruction. There were six delayed transfusions in the bilateral mastectomy-reconstruction cases. There were none in the unilateral cases.

Table 4. Advantages of Immediate Reconstruction

1. Psychological support of patient
2. Does not adversely affect natural course of the disease
3. Does not adversely affect adjuvant chemotherapy or radiotherapy
4. Does not affect detection of chest wall recurrence
5. Excellent technical results
6. Skin more compliant and larger in area when no previous scarring and wound contraction
7. Less expense
8. No increase in morbidity, actually less
9. No increase in tumor recurrences
10. Age is no limitation
11. Can do bilateral procedure and avoid the problem of bilateral breast carcinoma
12. Systemic problems should not play a role in selection of implant procedure. If able to have a mastectomy, patient is able to have an implant.
13. Realization that the woman can have reconstruction will encourage earlier diagnosis and treatment.

Table 5. Disadvantages of Immediate Reconstruction

1. Longer anesthetic
2. Possible increase in blood loss
3. Requires consistency and flexibility of team work of ablative and reconstructive surgeons
4. Must be careful in aspiration of a seroma if one should develop postoperatively

Table 6. Morbidity: Series of 126 Cases with 198 Mastectomies

		Number	Percent
Capsular contraction		3	1.5
Deflation (all in temporary expander phase)		6	3
Separation at site of valve	2		
Separation at expander seam	3		
Needle puncture	1		
Wound separation with implant exposure		2	1
Marginal slough with implant exposure		4	2
Removal		2	1
Fracture humerus w/chest wall hematoma			
Pain over prosthesis			
Infection		6	3
Respiratory infection within prior 6 weeks	5		
Pneumonia	2		
Tracheitis	1		
URI	2		
		23	11.5

Conclusion

With the technique using tissue expander prostheses, immediate breast reconstruction can be offered to every woman without fear of impairing prognosis, of spreading the disease, or of impeding adjuvant therapy, and with the promise of body form restoration along with preservation of the woman's psychological balance.

References

1. Georgiade GS, Georgiade NG, McCarty KS et al. Modified radical mastectomy with immediate reconstruction for carcinoma of the breast. Ann Surg 1981;193:565-73.
2. Georgiade GS. Immediate reconstruction of the breast following modified radical mastectomy for carcinoma of the breast. Clin Plast Surg 1984;11:383-88.
3. Georgiade G, Georgiade N, McCarty KS et al. Rationale for immediate reconstruction of the breast following modified radical mastectomy. Ann of Plast Surg 1982;8:20-28.
4. Albo RJ, Gruber R, Kahn R. Immediate breast reconstruction after modified mastectomy for carcinoma of the breast. Am J Surg 1980;140:131-34.
5. Horton CE, Rosato FA et al. Immediate reconstruction following mastectomy for cancer. Clin Plast Surg 1979;6:37-46.
6. McGrath MH. The argument for immediate post mastectomy breast reconstruction. Prob Gen Surg 1985;2:185-95.

7. Hoffman E, Klatsky S, Davis A. Immediate breast reconstruction after mastectomy for cancer: A team approach. Presented at annual meeting, Southern Medical Association, Orlando, Fl. Nov 18, 1985.
8. Hoffman E, Klatsky S, Davis A. Immediate breast reconstruction following mastectomy for malignancy: Team concept. Presented at annual meeting of the American Society for Asethetic and Plastic Reconstructive Surgery. New Orleans, Apr 14, 1986.
9. Hoffman E. The opposite breast and malignancy. Presented at annual meeting of the American Society for Aesthetic and Plastic Reconstructive Surgery. New Orleans, Apr 14, 1986.
10. Hoffman E. Immediate reconstruction after mastectomy for cancer. Presented at the 22nd National Conference on Breast Cancer, Boston, MA, May 16, 1986.
11. Albo RJ, Gruber R, Kahn R. Discussion of: Immediate breast reconstruction after modified mastectomy for carcinoma of the breast. Am J Surg 1980:140:134-36.
12. Asken MJ. Psychoemotional aspects of mastectomy: A review of recent literature. Am J Psychiatr 1975;132:56-59.
13. Clifford E. Psychological effects of the mastectomy experience In Georgiade NG, ed. Breast Reconstruction Following Mastectomy. St. Louis: CV Mosby, 1979:1-21.
14. Maguire P. The psychological and social sequelae of mastectomy. In Howells JG, ed. Modern Perspectives in the Psychiatric Asects of Surgery. New York: Brunner/Mazel, Inc., 1976:Ch 19.
15. Goin JM, Goin MK. Breast reconstruction after mastectomy. In Changing the Body: Psychological Effects of Plastic Surgery. Baltimore: Williams and Wilkins, 1981:163-89.
16. Clifford E. The reconstructive experience: The search for restitution. In Georgiade NG, ed. Breast Reconstruction Following Mastectomy. St. Louis: CV Mosby, 1979:22-34.
16a. Goldsmith HS, Alday ES. Role of the surgeon in the rehabilitation of the breast cancer patient. Cancer 1979;28:1672-75.
17. Frazier TG, Noone RB. Immediate reconstruction in the treatment of primary carcinoma of the breast. Surg Gynecol Obstet 1983;157:413-14.
18. Noone RB, Frazier TG, Hayward CZ, Skiles MS. Patient acceptance of immediate reconstruction following mastectomy. Plast Reconstr Surg 1982;69:532-638.
19. Schuler FA, Rosato RE, Miller E, Horton CE. Silicone prostheses and anti-tumor immunity: An in-vitro rat study. Plast Reconstr Surg 1978;61:762-66.
20. McGrath MH, Burkhardt BR. The safety and efficacy of breast implants for augmentation mammaplasty. Plast Reconstr Surg 1984;74:550-60.
21. Rhadovan C. Breast reconstruction after mastectomy using the temporary expander. Plasti Reconstr Surg. 1982;69:195-206.
22. Harris HI. Surgery of breast implants from the point of view of carcinogenesis. Plast Reconstr Surg 1961;28:81.
23. Schuler FA, Rosato F, Horton CE. Silicone prosthesis and anti-tumor immunity. Plast Reconstr Surg 1978;61:762.
24. Lilla JA, Vistnes LM. Long-term study of reactions to various silicone implants in rabbits. Plast Reconstr Surg 1976;57:637.
25. Brown JB, Fryer MP, Ohlwiler DA. Study and use of synthetic materials such as silicones and teflon, as subcutaneous prostheses. Plast Reconstr Surg 1960;26:264.
26. Hoopes JE, Edgerton MT, Shelley W. Organic synthetics for augmentation mammaplasty: Their relation to breast cancer. Plast Reconstr Surg 1967;39:263.
27. Bedwinek JM, Lee J, Fineberg B, Ocwieza M. Prognostic indicators in patients with isolated local-regional recurrence of breast cancer. Cancer 1981;47:2232-35.
28. Breast Cancer Study Group. Identification of breast cancer patients with high risk of early recurrence after radical mastectomy. Cancer 1978;42:2809-26.
29. Gilliland MD, Barton RM, Copeland EM, III. The implications of local recurrence of breast cancer as the first site of therapeutic failure. Ann Surg 1983;197:284-87.
30. Lee YN, Terry R. Surgical treatment of carcinoma of the breast. I. Pathological finding and pattern of relapse. J Surg Oncol 1983;23:11-15.
31. Nikkanen TAV. Recurrence of breast cancer: A retrospective study of 569 cases in clinical stages I-III. Acta Chir Sand 1981;147:239-45.
32. Stenkvist B, Bengtsson E, Dahlqvist B et al. Predicting breast cancer recurrence. Cancer 1982;50:2884-93.
33. Mendelson BC. Local recurrence of breast cancer: Its significance in relation to breast reconstruction. Aust N Z J Surg 1982;52:59-63.
34. Gilliland MD, Larson DL, Copeland EM. Appropriate timing for breast reconstruction. Plast Reconstr Surg 1983;72:335-39.
35. Guthrie RH. Reconstruction of breast following mastectomy. Ann Plast Surg1978;1:302.

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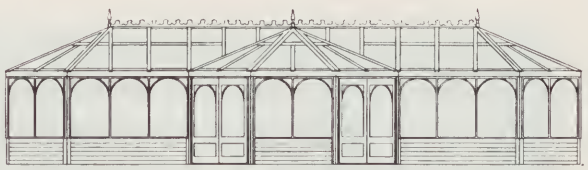
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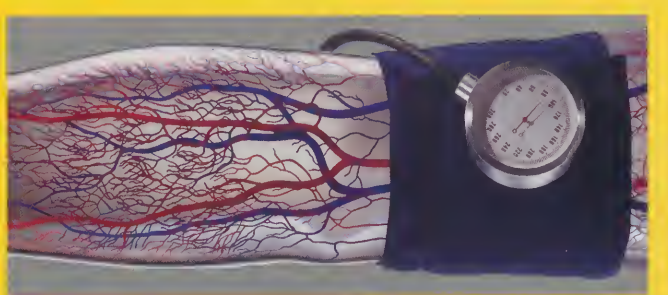
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BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence. 12/21/89 • P90-W198V

References:

1. Reinfrank J, Eckardt A, Schneider G, et al: Long-term efficacy and safety of verapamil SR 240 mg in hypertension. *Acta Therapeutica* 1989;15:221-235. **2.** Saunders E, Weir MR, Kang BW, et al: A comparison of the efficacy and safety of a beta blocker, calcium channel blocker, and converting enzyme inhibitor in hypertensive blacks. *Arch Intern Med* (accepted for publication). **3.** Speders S, Sasna J, Schumacher A, et al: Efficacy and safety of verapamil SR 240 mg in essential hypertension: Results of a multicentric phase IV study. *J Cardiovasc Pharmacol* 1989;13(suppl 4):S47-S49. **4.** Henry JA, Chester PC, Latham AN: Sustained-release verapamil or atenolol in essential hypertension. *J Drug Dev* 1988;1:69-75. **5.** Midtbo KA, Hals O, Lauve O: A new sustained-release formulation of verapamil in the treatment of hypertension. *J Clin Hypertens* 1986;3:125S-132S. **6.** Bachsler JA, Simmans RL, Ward PJ, et al: Verapamil SR and propranolol LA: A comparison of efficacy and side effects in the treatment of mild to moderate hypertension. *J Hum Hypertens* 1988;1:305-310. **7.** Data on file, G.D. Searle & Co.

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Liposuction: Blood Loss and Autotransfusion

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Blood loss usually is not clinically significant during liposuction, but the need for transfusion increases with the amount of tissue removed. Autologous blood donations in preparation for significant blood loss are widely accepted by patients and physicians.

The plastic surgeon trained and experienced in liposuction is able to estimate the amount of tissue that must be removed to achieve the desired result. This is of clinical importance when the amount of resection results in significant amounts of fluid and third-space fluid loss. We review parameters we use to predict blood losses and guidelines for the use of autologous blood transfusions.

Liposuction has become a common procedure since it was first performed by Schruddle in 1964.[1] The usual indications for liposuction are isolated contour deformities in patients who are not generally obese. However, the indications are increasing and include treatment of wounds with bulky margins (that may result from mastectomy), flaps that require debulking as secondary procedures, lipomas, multiple familial angiolipomatosis, and gynecomastia.[2,3] Liposuction has been used to allow linear closure of the donor site of a skin flap that would otherwise have required a skin graft.[4] Other uses undoubtedly will appear as experience with the technique increases.

Blood loss usually is not clinically significant, although there is a potential for significant bleeding, and some patients have required transfusions. External losses can be estimated by the volume of aspirated material, which consists mostly of fat and 25 to 35 percent blood, although the percentage of blood is highly variable and ranges anywhere from 8 to 54 percent.[5-7] Hidden, or "internal," blood loss and fluid shifts within the tissue that was suctioned are more difficult to estimate.

Avoid transfusion if possible. A careful history usually will reveal a history or family history of bleeding disorders and indicates that more thorough evaluation should be performed. A bleeding time should be performed if a history of aspirin or nonsteroidal anti-inflammatory agent (for example, Motrin, Advil) use is elicited. The bleeding time should be below 7 minutes. Otherwise, elective surgery should be deferred until 10 to 14 days after discontinuation of the medication. A prothrombin time (PT), partial thromboplastin time (PTT), and platelet count also are useful screening tests.

During the liposuction procedure, blood loss is minimized by use of the blunt suction cannula, introduced by Illouz[8] in 1977, rather than sharp curettes. The surgeon should observe the aspirate and stop when the color turns from pink to red. Preoperative local infiltration with an epinephrine-containing solution in a 1:200,000 to 1:400,000 dilution may reduce blood loss.[9,10] Perioperative hydration is critical in maintaining fluid balance since patients usually come to the operating room in a fasted state for eight hours or more, and depending on the size of the cannula and area suctioned, "internal" fluid and/or blood loss will occur and further deplete the intravascular volume. Finally, well-fitted elastic garments may reduce interstitial swelling and the potential dead space in which fluid can accumulate.

The need for blood transfusion increases with the amount of tissue removed. If more than 1500 cc of aspirate are anticipated, we prepare to transfuse at least one unit of autologous blood and an additional unit for each liter of material removed (Table).

The rationale for preparing autologous blood as opposed to banked blood results primarily from the fear of transmitting viral illnesses. While screening programs have been very successful in reducing the incidence of hepatitis B, over 10 percent of patients who received multiple blood transfusions acquired non-A non-B hepatitis (hepatitis A is generally not transmitted by blood). A second virus transmitted by blood is cytomegalovirus (CMV), which usually causes clinical illness in immunodeficient hosts. Finally, the risk of transmission of the AIDS virus by blood is a real concern for everyone. While still not common among transfusion recipients, partly because of the very long incubation period measured in years, it is beginning to be reported with increasing frequency among patients who have received large amounts of blood products.[11]

Because of these concerns, bloodbanks have devised protocols whereby individuals undergoing elective surgery may bank their own blood. Autologous blood transfusions are not new, and their use was described by Grant in 1921.[12] At present, blood is stored as whole blood with citrate-phosphate-dextrose and may be stored for up to 35 days in the refrigerator at 4°C. Longer periods of storage result in diminished red cell diphosphoglycerate (2,3 DPG), a compound required for normal oxygen delivery to the tissues. Loss of this substance causes an increased affinity of oxygen hemoglobin (shift to the left of the oxygen hemoglobin dissociation curve), and failure of the hemoglobin to release oxygen to the tissues. The amount of lactic acid, potassium, and ammonia also is increased with blood storage, although the amounts are not clinically significant except in patients with far advanced renal or hepatic disease. Platelets, clotting factor 5, and clotting factor 8 are lost in stored blood.

Autologous blood donations are accepted as long as the patient's hematocrit remains above 34 percent. Each unit of whole blood donated reduces the hematocrit an average of 1.5 percent, although this can be as high as 4 percentage points. Patients routinely are placed on oral iron supplements consisting of ferrous suffate 325 mg by mouth three times daily. Patients should be warned that the iron will turn the color of their stools dark.

Serial blood donations usually are not taken more frequently than once weekly, although five-day intervals between donations are acceptable. By the time of surgery, the hematocrit has almost completely returned to normal.[13] If necessary, a donation may be made up to three days prior to surgery. Thus, a patient may have as many as 6 or 7 units of autologous blood in the bloodbank, although this is rarely required. The hematocrit is routinely checked prior to each donation and blood will not be taken if the hematocrit falls below 34 percent.

The safety of autotransfusion has been documented,[13] and has gained widespread acceptance among patients and physicians in preparation for liposuction when significant blood loss is anticipated.

Table. Suction Lipectomy and Autotransfusion

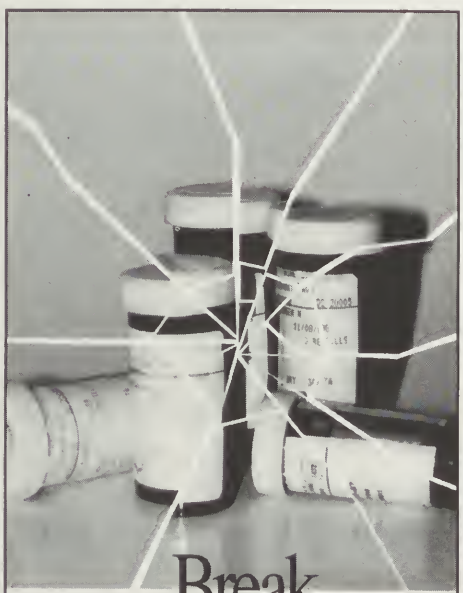
Units of Blood Prepared for Autotransfusion[1]	Anticipated Volume of Tissue Removed	Estimated Blood Loss[2]	Typical Area of Body or Indication for Suction Lipectomy
0	Negligible	Negligible	Neck Lower face (jowls) Distal extremities Lipomas Debulking flaps performed for cancer or trauma
0	250-1500 cc	<500 cc	Upper abdomen Complete abdomen, moderate Hips Thighs Lumbar region Buttock Lymphedema
1	1500-2500 cc	500-800 cc	Abdomen, large Combined, 2 major ares
2	2500-3000 cc	1000 cc	Combined, 2 major areas, large ≤ 15% total body surface areas
3 or more	>3000 cc	>1000 cc	Combined, 3 major ares, large > 15% total body surface area

1. Guidelines only. Fluid and blood replacement modified according to individual patient's needs, hemodynamic parameters, urine output, unexpected losses, etc.
2. Based on rule of thumb of approximately 33 percent of material obtained composed of blood. Actual amount may vary between 10 and 50 percent. The surgeon should watch the aspirate during the entire procedure for signs of excess blood removed.

References

1. Schruddle, J. Lipexeresis in the correction of local adiposity. Abstract. First Congress of the International Society of Aesthetic and Plastic Surgeons. Rio de Janeiro, 1972.
2. Kanter WR, Wolfort FG. Multiple familial angiolipomatosis: Treatment by liposuction. Ann Plast Surg 1988;20:277.
3. Courtiss EH. Gynecomastia: Analysis of 159 patients and current recommendations for treatment. Plast Reconstr Surg 1987;79:740.
4. Ersek RA, Zambrano J, Surak GS, Denton DR. Suc-

tion-assisted lipectomy for correction of 203 figure-faults in 101 patients: Indications, limitations, applications. Plast Reconstr Surg 1986;78:614-24.
5. Grazer FM, Klingbeil JR. Body Image: A Surgical Perspective. St. Louis: Mosby, 1980.
6. Gargan TJ, Courtiss EH. The risks of suction lipectomy--Their prevention and treatment. Clin Plast Surg 1984;11:457.
7. Goodpasture JC, Bunkis J. Quantitative analysis of blood and fat in suction lipectomy aspirates. Plast Reconstr Surg 1986;78:765-72.
8. Illouz YG. Une nouvelle technique pour les lipodystrophies localisees. Rev Chir Fr 1980;4:19.
9. Grazer FM. Suction-assisted lipectomy--Its indications, contradictions, and complications. In Habal MB ed. Advances in Plastic and Reconstructive Surgery, Vol. 1. Chicago: Year Book Medical Publishers, 1984.
10. Hetter GP. The effect of low-dose epinephrine on the hematocrit drop following lipolysis. Aesthic Plast Surg 1984;8:19.
11. Selik RM, Haverkos HW, Curran JW. Acquired immunodeficiency syndrome (AIDS) trends in the United States 1978-1982. Am J Med 1984;76:493-500.
12. Grant FC. Autotransfusion. Ann Surg 1921;74:253.
13. Mandel MA. Autotransfusion in elective plastic surgical operations. Plastic Reconstr Surg 1986;77:767. ■



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Nonparasitic Splenic Cysts

Elmer Hoffman MD, FACS and Yu-Wen Chang MD, FCAP

Dr. Hoffman is Chief of Surgery, Baltimore County General Hospital, and Assistant Professor of Surgery at The Johns Hopkins University School of Medicine. Dr. Chang is Associate Chief of Pathology, Baltimore County General Hospital.

Splenic cysts are rare: cysts changes occur less frequently in the spleen than in any other abdominal viscera.

In 1829 Andral[1] described the first splenic cyst at autopsy. The first successful removal of a splenic cyst was performed by Pean[2] in 1867. Kirby[3] in 1955 reported 188 cases of nonparasitic cysts of the spleen. By 1978 less than 600 cases of nonparasitic cysts were recorded in the world literature.[4]

Splenic cysts most frequently occur in patients 20 to 50 years old and occasionally in children.[5]

Etiology and Pathogenesis

Table 1 lists a classification of the etiology of splenic cysts. Trauma always has been suspected of playing a role in the formation of large hemorrhagic or serous types of splenic cysts. About 50 percent of the splenic cysts occurred within three years after trauma. However, a history of trauma cannot always be obtained.[5-8] This is understandable since most people will have sustained some type of injury to the left chest or upper abdomen sometime in their past.

If trauma is the etiologic agent[6] the sequence of events is injury, splenic laceration within the capsule, laceration of splenic vessels, hemorrhage, encapsulation of the hematoma, absorption of the blood, fibrous wall formation, and persistence of serous fluid within that wall.

Spontaneous intrasplenic hemorrhage also has been designated as a possible etiologic agent.

Splenic cysts occur more frequently in women than in men with a ratio of 3:2, and most frequently during childbearing age. Often there has been a menstrual irregularity reported in the cases of splenic cysts. The spleen becomes congested during menstruation and pregnancy. There is a report of a case of a marsupialized splenic cyst that continued to discharge blood at the time of each menstrual period.[9] In one series 70 percent of the cases of splenic cyst occurred during pregnancy, and 20 percent of these had a history of trauma.[10]

Splenic infarction with degeneration of the arteriolar blood supply to a portion of the spleen has been considered an etiologic

factor,[11] and there is both support and dispute for this theory.[6] Degeneration of the splenic tissue following closure of vessels from thrombosis, embolism, or endarteritis also has been incriminated as an etiologic agent.[9]

When splenomegaly occurs, the patient is more likely to have injury to the spleen if subjected to trauma. Splenomegaly may be due to other diseases of the spleen such as malaria, syphilis, tuberculosis, typhoid fever, paratyphoid fever, and mumps. Peritoneal infoldings with subsequent trauma (producing what has been known as infoliation cysts) have been reported as well as congenital cellular rests in the spleen with subsequent growth, with or without trauma.[6,12-15]

Calcification of a splenic cyst may occur regardless of the etiologic agent and has been reported in parasitic cysts.[6,16,17]

Classification and Pathology

A modified Fowler's system of classification of splenic cysts [13-15, 18-19] is shown in Table 2.

According to Akerman,[20] approximately 75 percent of the nonparasitic cysts of the spleen are secondary false cysts or pseudocysts. The cyst wall is made of dense fibrous tissue, often hyalinized and calcified, but no epithelial lining is present. The cyst usually is filled with bloody material or yellowish necrotic debris.

About 10 percent of the nonparasitic cysts of the spleen are epidermoid cysts lined by stratified squamous epithelium without any skin appendages or hair follicles. If skin appendages or hair follicles are present, the cyst is a dermoid cyst.

Endothelium-lined splenic cysts actually are cystic vascular or lymphatic tumors (hemangiomas and lymphangiomas). Hemangiomas may be either capillary or cavernous type, histologically the same tumors as seen in other parts of the body. The criterion of a lymphangioma lies in the presence of budding cells in the lymph sinuses.

Simple cysts are lined by a single layer of cuboidal mesothelial cells. The inner wall often has tree root-like trabeculations. The cyst wall shows varying degrees of fibrosis.

It is very important to examine the cyst wall carefully. Because large portions of the inner surface of primary splenic cysts may be devoid of an epithelial lining as a result of degeneration, many sections often are needed to classify the cysts properly.

In another classification of splenic cysts by their location,[21] it was found that 26 percent were located in the lower pole, 18 percent on the convex surface of the spleen, 18 percent on the concave surface of the spleen, 14 percent at the hilus, 12 percent at the anterior border of the spleen, 9 percent at the upper pole and 3 percent on the posterior border.

Table 1. Etiology of Splenic Cysts

- Trauma
- Spontaneous intrasplenic hemorrhage with organization
- Menstruation
- Pregnancy
- Splenomegaly due to other diseases
- Occlusion of vessels with infarction of spleen
  1. Thrombosis
  2. Embolism
  3. Endarteritis
  4. Sickle cell anemia
- Peritoneal infoliation cysts
- Congenital cellular rests
- Infection and inflammation
  1. Malaria
  2. Tuberculosis
  3. Typhoid Fever
  4. Syphilis
- Neoplasm
- Unknown

Table 2. Classification of Nonparasitic Splenic Cysts

- Primary true cysts (cysts with cellular linings)
  1. Epithelial cysts
     - Epidermoid
     - Dermoid
  2. Endothelial or mesothelial cysts
     - Hemangiomas
     - Lymphangiomas
     - Simple cysts
- Secondary false cysts or pseudocysts (cysts without cellular linings)
  1. Traumatic (blood and serous types)
  2. Degenerative (liquefaction)
  3. Inflammation
     - Acute necrosis in infection
     - Chronic tuberculosis

Symptomatology

Splenic cysts may be asymptomatic and may be found accidentally at the time of a routine physical examination, an exploratory laparotomy or abdominal operation for other disorders, or during gastrointestinal x-ray studies (Table 3).[1-3,6,8,22-24]

The simple presence of a mass in the abdominal

Table 3. Symptomatology

- Accidental discovery on physical examination, at operation, or by X-ray studies.
- Space Occupation
  1. Heaviness in left hypochondrium
  2. Pain

Abdomen	Chest
Left shoulder	Left hypochondrium
Epigastrium	Mid-back
Left costovertebral angle	Umbilical
Left chest (after large meals)	

- Pressure symptoms
  1. Cardiopulmonary system

Dyspnea	Cough
Pain	

  2. Gastrointestinal symptoms

Vague digestive disturbances	Nausea
Vomiting	Fullness
Constipation	Flatulence
Diarrhea	Abdominal pain

  3. Genitourinary symptoms

Dysuria	Albuminuria

  4. Temperature elevation and chills
  5. Weight loss

cavity may produce some symptoms. There may be a feeling of heaviness in the left upper quadrant and left hypochondrium. Pain may accompany the presence of this mass and may vary from something as simple as an uncomfortable pressure to severe pain located in the abdomen, chest, left shoulder, left hypochondrium, epigastrium, mid-back, peri-umbilical region, left costovertebral angle, and left chest. The pain has been reported to be worse following large meals.

Some symptoms may be due to pressure of the mass upon the surrounding structures. This may produce dyspnea, cough, chest pain, vague digestive disturbances, nausea, vomiting, fullness, constipation, flatulence, abdominal pain, and/or diarrhea.

Weight loss and temperature elevation also have been reported in association with a splenic cyst.

There are changes reported in conjunction with radiologic studies that help in making the diagnosis of a splenic cyst. A plain film of the abdomen may show a soft tissue mass or calcification. The psoas shadow may be obliterated. Fluoroscopy of the diaphragm may reveal elevation of the left side, limitation of excursion, and movement of the soft tissue mass with respiration. There may be pleural effusion and pneumonitis on the chest x-ray. Displacement of the left kidney downward may occur and be visualized on an intravenous pyelogram. A GI series may reveal that the stomach is displaced downward and to the right. On barium enema, the splenic flexure is displaced downward. An ultrasound examination of the upper abdomen may reveal the cyst of the spleen. A liver/spleen scan will show an abnormality of the spleen. A CAT scan of the abdomen will show the cystic mass in the spleen and marked detail of the surrounding structures.

Table 4 lists diseases that have been most frequently confused with splenic cysts. [2, 3, 6, 8, 13-15, 25, 26]

Table 4. Differential Diagnosis

Pancreatic cyst	Omental cyst
Mesenteric cyst	Cyst of left lobe of liver
Ovarian cyst	Cyst of left kidney
Splenomegaly due to other causes	Echinococcus cyst
Tumor of left kidney	Aneurysm of splenic artery
Retroperitoneal tumor	

Treatment

Marsupialization was recommended in early reports as a method of handling splenic cysts. However, as modern surgery improved and adjuvant measures became available, splenectomy was considered the method of choice. In recent years with the description of the entity of post-splenectomy sepsis, it has been advisable, where possible, to perform a partial splenectomy with removal of the splenic cyst. The occurrence of post-splenectomy sepsis most often is seen in younger patients where the immunologic development has not yet matured. It is rare to encounter post-splenectomy sepsis following splenectomy in adults.

Many articles have been written on the technique of splenectomy and partial splenectomy, the types of incisions used, and the advisability of drainage of the splenic bed and postoperative anticoagulation. In the opinion of the author (E.H.) the splenic bed should be drained and prophylactic anticoagulant therapy should be instituted postoperatively to prevent the possible fatal complication of thrombosis of the splenic vein and portal vein.

Cases

Tables 5a, and 5b summarize pertinent clinical data. A palpable mass in the left upper quadrant (LUQ) was present in 50 percent of the cases. A history of trauma was present in four of the six cases. The CAT scan would seem to be the prime test in diagnosing this entity. All six patients were treated with splenectomy, and all recovered uneventfully. All except two patients (Cases 1 and 5) received pneumococcal vaccine.

Four of the present series were pseudocysts, one was an epidermoid cyst, and one was classified as a simple cyst. Further description is found under the Pathology section.

Figures 1 and 2 are examples of the cases reported.

Only one case, Case 4, had a post operative platelet count of more than 1,000,000. That case had a peak platelet count of 1,194,000 on postoperative day 21. Anticoagulant therapy was utilized.

Summary

The ultrasound modality, the Scintiscan with tech-

Table 5a. Clinical Presentation of Cases

Case Number	Age	Sex M - Male F - Female	Palpable Mass	Back Pain	History of TBC	Trauma History	Abdominal Pain	Nausea and Vomiting	Fullness with Meal	Constipation
1	16	M	+LUQ	-	-	+	-	-	+	+
2	29	F	-	-	-	-	+	-	-	-
3	46	F	+LUQ	-	+	+	+	-	-	-
4	22	M	+LUQ	-	-	+	-	-	+	-
5	46	F	-	+	-	-	+	-	-	-
6	42	F	-	+	-	+	-	+	-	-

LUQ = Left upper quadrant

netium, and the CAT scan may make the diagnosis and may pinpoint the location of the splenic cyst.

Physical examination may reveal no abnormalities. In some cases a mass may be palpable in the LUQ. Bulging of the left lower intercostal spaces has been reported. The diaphragm may exhibit impaired motion and elevation. Percussion and auscultation of the chest may reveal secondary pulmonary findings.

References

1. Andral G. D'Anatomie Pathologic. Paris, 1829.
2. Schwartz, AD. Traumatic cyst of the spleen. Am J Surg 1955;89:1084-85.
3. Kirby LR, Hart GA, Grimes R. Calcified pseudo-cyst of the spleen. Am Surg 1955;21:388-91.
4. Robbins FG, Yellin AE, Lirova RW et al. Splenic epidermoid cysts. Ann Surg 1978;187:231-35.
5. McClure RD, Altemeirer WA. Cysts of the spleen. Ann Surg 1942;116;98.
6. Martin JD, Jr, Zegea EL, Adamson NE, Jr. Calcified cysts of the spleen. Ann Surg 1950;131:765-73.
7. Waugh JM, Lillie MC, Roseow JH. Splenic cyst: Report of two cases. Proc Staff Meet, Mayo Clin, 1948;23:409.
8. Duby H. Splenic cyst. New Engl J Med 1947;237:731.
9. Tamaki HT. Splenic cysts. Arch Path 1948;46:550.
10. Aiengar NA. Solitary splenic cysts. Indian M Gazette 1945;80:131.
11. Deneen EB. Hemorrhagic cysts of the spleen. Ann Surg 1942;116:103.
12. Pepere A. Sul l' origine della cisti multiple della milza. Policlin Roma, 1912;19:35.
13. Fowler RH. Surgery of cysts of the spleen. Ann Surg 1921;73:20.
14. Fowler RH. Cysts of the spleen. Ann Surg 1930;57:638.
15. Fowler RH. Cystic tumors of the spleen. Int Abstracts Surg 1940;70:213.
16. Leader LO, Goldberg B. Echinococcus cysts of the left lobe of the liver. AJR 1940;44:207.
17. Lustok MJG, Baum GL. Calcified splenic cyst; Report of a case. Dis Chest 1949;16:329.
18. Radakovich M. Epidermoid cysts of the spleen. Ann Surg 1950;131:268-76.
19. Rappaport H. Tumors of the Hematopoietic System. 1st Ed. Washington, DC: Armed Forces Institute of Pathology, 1966:388-97.
20. Ackerman LV, Rosai J. Surgical Pathology. 5th Ed. St. Louis: The C.V. Mosby Co., 1974:1002-1005.
21. Strode JE, Beek LC. Calcified false cysts of the spleen. Proc Clin, Honolulu, 1948;14:41.
22. Lange VF, Morton SA, Steele JD, Schaeffer SA. Cysts of the spleen. Ann Surg 1948;127:573.
23. Passalacqua LA. Large serous cyst of the spleen. Bol Asoc Med PR 1937;29:444.
24. Dobrzaniecky W. Multilocular cysts of the spleen produced by infarct. Ann Surg 1930;92:67.
25. Kierulf, E. Calcified cysts of spleen. Acta Radiol 1946;27:43-46.
26. Bell RP, Jr. Splenic cysts with report of a case of a large unilocular cyst of rapid growth. Ann Surg 1953;137:781-86.

Table 5b. Radiological - Pathological Presentation of Cases

Case Number	Flat Plate Abdomen	Barium Enema	GI Series	Ultra-Sound	CAT Scan	Liver-Spleen Scan	Location of Cyst	Size of Cyst (cm)	Weight of Spleen (gm)	Size of Spleen (cm)	Classification of Cyst	Platelet Peak POD/Count
1	+	+	+	ND	ND	ND	Medial lower pole	10x8x5	556	NA	Pseudocyst	7/380,000
2	-	-	-	-	+	-	Anterior inferior	6x6	165	13x11x6	Epidermoid	8/529,000
3	ND	ND	ND	+	+	ND	Upper pole	12x9	625	17.5x13.5x4.0	Simple cyst	9/933,000
4	ND	ND	ND	ND	+	+	Mid spleen	17x14	2,300	24x15x13	Pseudocyst	21/1,194,000
5	-	-	+	ND	ND	-	Upper pole	6x6x3	140	10x6x3	Pseudocyst	NA
6	ND	ND	ND	+	+	ND	Lower pole	6x5	260	17x9x5	Pseudocyst	2/228,000

ND = Not done NA = Not available POD = Postop



Figure 1. Case 2, Photomicrograph of splenic epidermoid cyst showing stratified squamous lining epithelium.

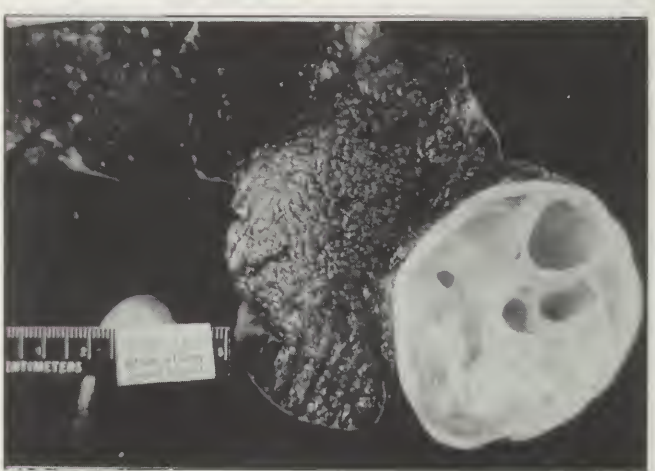


Figure 2. Case 5, Gross photograph of splenic pseudocyst.

Case Report: Adenocarcinoma of the Anal Canal

Howard K. Berg MD

From the Department of Surgery, Colorectal Section, Baltimore County General Hospital.

While survival rates for squamous cell carcinoma of the anal canal have improved over the years, survival rates for the more rare adenocarcinoma remain dismal.

Carcinomas of the anal canal are uncommon lesions that represent about 2 to 6 percent of large bowel carcinomas.[1,2] While various histologic types have been described, squamous cell carcinoma is by far the most frequently encountered variety. A more rare histologic type is an adenocarcinoma, which arises from the anal canal ducts. While survival rates for squamous cell carcinoma have improved over the years, secondary to combined chemotherapy and radiation therapy,[3-5] survival rates for adenocarcinoma of the anal canal remain dismal.

Report Case

An 80-year-old white female presented with a three-month history of perianal pain, burning, and bright red blood per rectum. She denied crampy abdominal pain, constipation, diarrhea, or change in bowel habits but did note a decrease in the caliber of her stool. Her medical history was unremarkable. Physical examination also was unremarkable except for the rectal exam, which showed a posterior quadrant mass at the anal verge with a 4 cm erythematous, eczematous butterfly lesion (Figures 1 and 2). The mass was hard to palpation, with mild tenderness.

The patient was taken to the operating room for evaluation under anesthesia and for biopsy of the lesion. Pathology was reported to be an infiltrating moderately and poorly differentiated adenocarcinoma. The patient subsequently underwent a CT scan of the abdomen, pelvis, and chest, as well as colonoscopy. There was no evidence of metastatic or synchronous disease.

The patient underwent an abdominal perineal resection with wide perineal dissection including removal of the posterior vaginal wall and partial bilateral vulvectomy. Pathology showed a poorly differentiated adenocarcinoma with involvement of anal mucosa and submucosa as well as Paget's disease of the perianal tissue (Figures 3 and 4). The wound was allowed to heal by secondary intention.

Three months postoperatively the patient was found to have a 2 x 2 cm palpable right groin node. The patient underwent excisional biopsy of the node, which showed poorly differentiated

adenocarcinoma consistent with the primary tumor. The patient subsequently underwent radiation therapy, consisting of 5500 cGy, to the perineum and groin. She is presently nine months postoperative with no evidence of disease.

Discussion

The surgical anal canal as defined by the American Joint Committee for Cancer Staging (AJC) extends from the anorectal ring to the anal verge, at the level of the intersphincteric groove.[3] This is typically about 4 cm in length in women and 4.5 cm in length in men. The anal canal is divided into three epithelial zones consisting of the lower squamous zone from the intersphincteric groove to the dentate line, the anal transitional zone (which extends upward from the dentate line about 1 cm), and the colorectal zone up to the anorectal ring.[6]

Histologically the squamous zone is lined by a nonkeratinizing squamous epithelium with short or no papillae. Glands are never present. At the level of the anal verge the squamous zone gradually merges with the perianal skin, where keratinizing epithelium with apocrine glands and hair follicles can be seen. The anal transitional zone may have a small rim of mature squamous epithelium and is typically lined by stratified cuboidal to columnar epithelium, similar to the rectal mucosa above it.

At the level of the dentate line, anal intramuscular glands open directly into the crypts of Morgagni. These mucus-secreting glands are branched tubular structures lined by transitional epithelium near their orifices and at their depths are lined by low columnar or cuboidal epithelium.[7]

Because of the different histologic patterns seen in the anal canal, a variety of tumors can arise. Morson and Sobin[8] however, have grouped these so that 80 percent of all primary anal canal carcinomas are considered epidermoid, while the remaining 20 percent include adenocarcinoma, undifferentiated carcinoma, and melanoma.

Adenocarcinomas are presumed to arise from the lining of the anal intermuscular glands. Nielson and Koch[2] note that anal duct adenocarcinomas can be divided according to their localization into (1) anal or (2) perianal, perirectal, or ischiorectal. They believe adenocarcinomas in this area probably always originate from the anal intramuscular glands. The exact origin, however, may be difficult to substantiate secondary to destruction of the gland by the malignant process.[9] Other possible sources of adenocarcinoma in this region include those arising in perianal fistulas[10] or from the apocrine glands in the perianal area.[11]



Figure 1. Showing perianal infiltration.

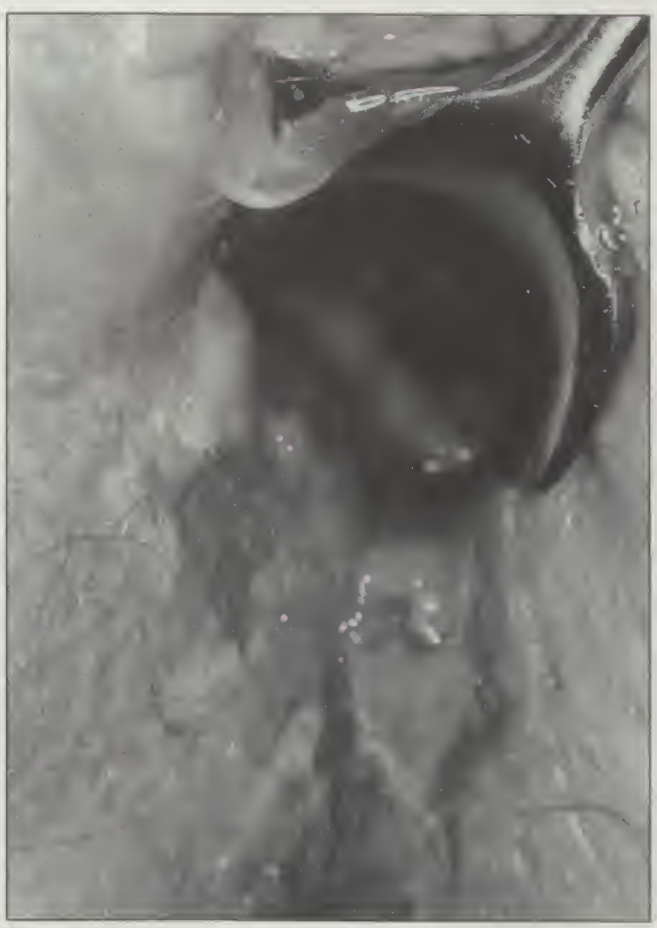


Figure 2. Showing tumor at the anal verge.

When symptoms are present, many times patients equate them with benign problems that may be present at the same time, and therefore, in more than 60 percent of patients the disease is discovered late. Bleeding, pain, palpable mass, and pruritus are the most common symptoms.[1,5,12] Spread of anal canal carcinoma is chiefly through local extension and lymphatic drainage to the pelvis and groin.

Literature Review

While there are only a few series of cases of anal canal adenocarcinoma found in the literature, all seem to indicate a poor survival rate. Cabrera et al.[13] over a 43-year period collected a series of eight cases. They had no reported five-year survivors, although two patients were still alive at two-and-a-half and three years following abdominal perineal resection. Merlini and Eckert[12] had two of six patients survive five years, whereas in a more recent series, Jensen et al.[14] had only one patient out of twenty one survive five years. This lone survivor was diagnosed accidentally during microscopic evaluation of an excised hemorrhoid.

Treatment for adenocarcinoma of the anal canal should consist of radical surgery including an abdominal perineal resection and wide excision of involved perianal tissue.[9,11] Data regarding lymph node management are not clear from the literature. With the patient presented here, a 2 cm enlarged palpable lymph node was found three months following her initial surgery. She underwent an excisional biopsy with subsequent radiation therapy to both groins and has no evidence of recurrence at this time. In light of the overall dismal outcome of this disease and weighing morbidity brought about by groin dissection, excisional biopsy of enlarged nodes followed by radiation to the groin may be the most reasonable method of treatment. As in squamous cell carcinoma of the anal canal, there is no evidence that prophylactic groin dissection will have a favorable effect on the five-year survival.

Summary

A review of the literature shows adenocarcinoma of the anal canal to have a poor outcome. Radical surgery is the treatment of choice for this disease.

References

1. Adam YG, Efron G. Current concepts and controversies concerning the etiology, pathogenesis, diagnosis, and treatment of malignant tumors of the anus. Surgery 1987;101:253-66.

2. Nielson WV, Koch F. Carcinomas of the anorectal region of extramucosal origin with special reference to the anal ducts. Acta Chir Scand 1973;139:299-305.

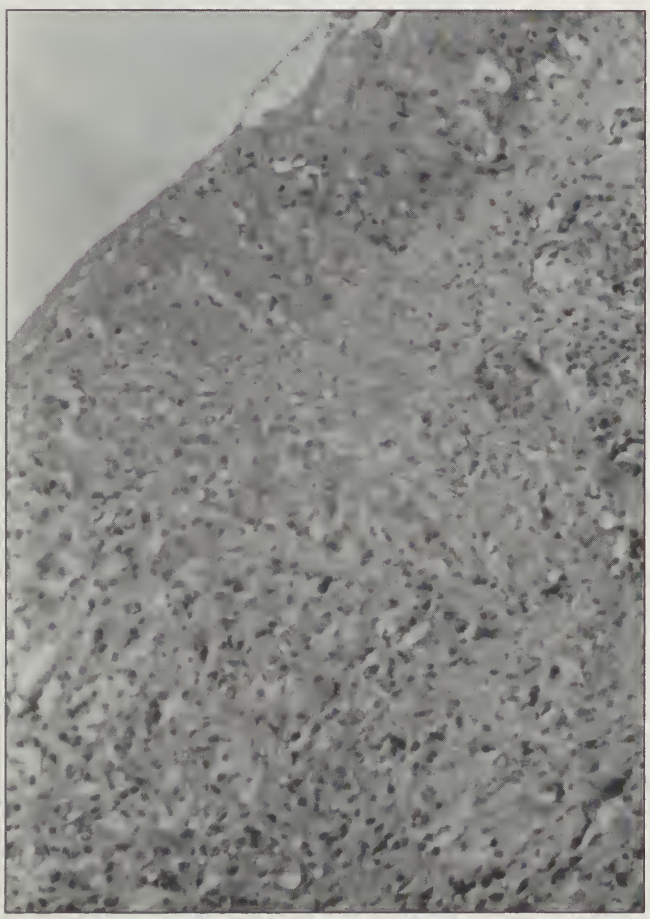


Figure 3. Paget cells of the perianal epidermis with underlying poorly differentiated cancer.

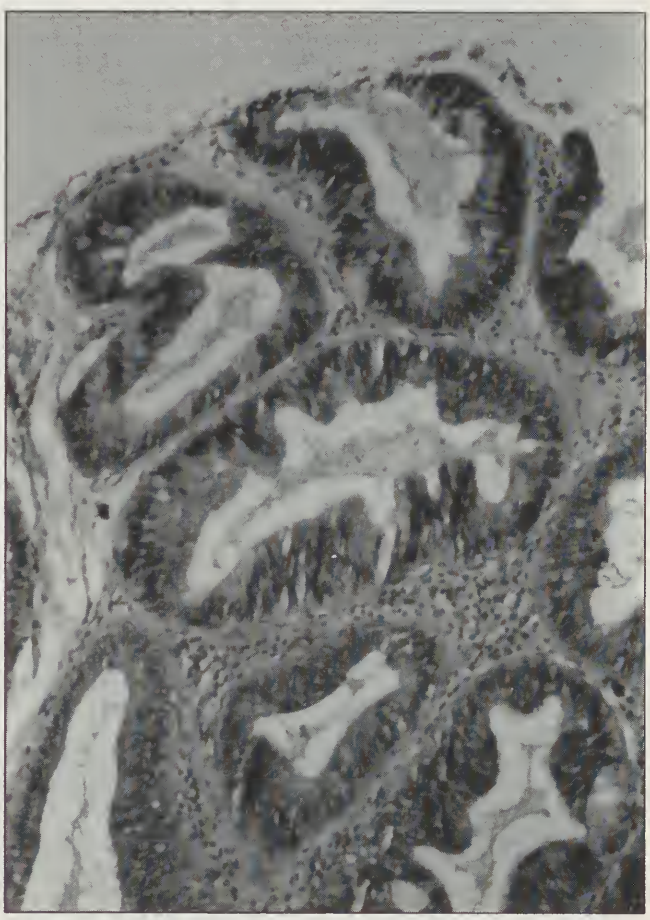


Figure 4. Glandular formation of anal canal adenocarcinoma.

3. Cummings BJ. Current management of epidermoid carcinoma of the anal canal. Gastroenterology Clin North Am 1987;16(1):125-42.
4. Enker WE, Heilwell M, Janov AJ et al. Improved survival in epidermoid carcinoma of the anus in association with preoperative multidisciplinary therapy. Arch Surg 1986;121:1386-90.
5. Gordon PH. Squamous cell carcinoma of the anal canal. Surg Clin North Am 1988;68:1391-99.
6. Fenger C. Histology of the anal canal. Am J Surg Pathol 1988;12(1):41-55.
7. Gordon PH. The anorectum - Anatomic and physiologic condition in health and disease. Gastroenterology Clin North Am 1987;16:1-15.
8. Morson BC, Sobin JH. Histological typing of intestinal tumors. International Histologic Classification of Tumors, No. 15, Geneva World Health Organization, 1976.
9. Parks TG. Mucos secreting adenocarcinoma of anal gland origin. Br J Surg 1970;57:431-36.
10. Tetz SB, Oush YD, Patterson RB, Kovalcik PJ. Mucinous adenocarcinoma developing in chronic anal fistula. Dis Colon Rectum 1981;24:562-66.
11. Zaren HA, Delone FX, Lerner HJ. Carcinoma of the anal gland. J Surg Oncol 1983;23:250-54.
12. Merlini M, Eckert P. Malignant tumors of the anus. Am J Surg 1985;150:370-72.
13. Cabrera A, Tsukada, Pickren JW. Adenocarcinomas of the anal canal and peri-anal tissues. Ann Surg 1966;164:152-56.
14. Jensen SL, Shokouh-Amiri, Hagen K, Harling H, Nielsen WV. Adenocarcinoma of the anal ducts. Dis Colon Rectum 1988;31:268-72.

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AIR FORCE

Results of Cholecystectomy in a Community General Hospital

Elmer Hoffman MD, FACS; Alan S. Davis MD, FACS; and Cary Glasser MD, FACS

From Baltimore County General Hospital Department of Surgery, where Dr. Hoffman is Chief, Dr. Davis is an Associate, and Dr. Glasser is an Active Attending. Dr. Hoffman is also an Assistant Professor, Department of Surgery, The Johns Hopkins University School of Medicine.

Biliary tract surgery can be done in a nonresidency hospital with extremely low morbidity rates, an absence of wound infections, an absence of wound dehiscences, and absence of mortality.

Cholecystectomy is one of the most common operations performed in the United States.[1-3] Some studies quote a mortality rate for cholecystectomy ranging from 0.3 to 3 percent,[3-7] and a morbidity rate ranging from 21.4[3] to 33.6 percent.[7] This represents a sharp decline in recent years from the 6.6 percent mortality rate in 1932[6] and 1.8 percent mortality rate in 1952.[4]

One frequently hears that biliary surgery is better done in a teaching institution. Undertaken to confirm a perception that the above is not correct, our study of cholecystectomy performed was done in a 240-bed community hospital without a surgical residency training program. Patient coverage is maintained on a 24-hour basis by medical and surgical physicians employed by the hospital. The physicians providing floor coverage are a separate group from the coverage in the Intensive Care/Progressive Care Units, Emergency Room, and Operating Room, each of which has its own separate physician group.

Assisting in the Operating Room is provided by a separate group of surgeons, 85 percent of whom are board certified in surgery and 5 percent of whom are board eligible. Second Assistants in the Operating Room are Surgical PAs or Surgical Technicians.

The Study

The period covered by this study extended from March 1, 1986 through December 31, 1986, and a total of 132 cholecystectomy cases was reviewed from the standpoint of age distribution, sex distribution, admitting diagnosis, presenting symptomatology, operative procedures performed, anesthesia administration, use of operative cholangiography, use of preoperative and postoperative antibiotics, pathology findings, bacteriology findings, use of drains, morbidity, mortality, and length of hospitalization.

The cases were distributed among 27 surgeons.

Table 1 shows the age distribution in the present series of patients. The sex distribution was 3 to 1 in favor of females. Symptomatology in this series is listed in Table 2.

The operative procedures performed on the present series of patients are listed in Table 3. Seventy-four percent of the cases had anesthesia administered by Nurse Anesthetist. The Anesthesia Department has eight Anesthesiologists and four nurse anesthetists. An Anesthesiologist is assigned as an Operating Room supervisor on every case administered by a Nurse Anesthetist.

Intraoperative cholangiography was performed in 53 percent of the cases of this series. Preoperative and postoperative antibiotic usage is described in Table 4.

Findings

The pathology findings are listed in Table 5.

Bacteriological results of the cultures taken in this series showed a 15 percent incidence of positive cultures. There was a 27 percent incidence of positive cultures in the cases of acute cholecystitis and a 9 percent incidence in the nonacute cases. The organisms in the acute cases included *alpha streptococcus*, *E. coli*, *Salmonella*, and *Klebsiella*. The organisms in the nonacute cases included *streptococcus fecalis*, *E. coli*, *Staphylococcus*, and *Klebsiella*.

In 79 percent of the cases, drains of either the Penrose rubber tissue type or suction type were used. In 21 percent of the cases, no drains were used.

Morbidity and Mortality

The morbidity of this type of surgery in our series of cases is listed in Table 6. There was an extremely low morbidity rate, absence of wound dehiscences, and absence of mortality. The literature quotes a morbidity rate ranging from 1 to 9.4 percent.[8-17] In our series, there was an occurrence of 23 instances (1.7 percent) of non-life-threatening complications (Table 6). The literature quotes mortality rates ranging from 0.6 to 2.6 percent.[8-17] There were no deaths in the present series.

The average length-of-stay for cholecystectomy patients below the age of 65 years was 5.9 days. The average for patients 65 years old and over was 8.8 days. If common duct exploration was added to the cholecystectomy, the corresponding lengths-of-stay were 9 days (below 65) and 10.2 days (65 and above).

Conclusions

It is possible for biliary tract surgery to be carried out in a nonresidency community general hospital with

Table 1. Age Distribution

Age Group	Number	Percent
10-19	1	0.7
20-29	17	12.9
30-39	30	22.7
40-49	24	18.2
50-59	19	14.4
60-69	24	18.2
70-79	12	9.1
80-89	5	3.8

Table 2. Presenting Symptomatology

	Percent
Pain	86
Nausea	43
Vomiting	29
Indigestion	14
Fatty food intolerance	10
Pancreatitis	5
Belching	4
Distention	2
Diarrhea	1

Table 3. Operations Performed

Cholecystectomy	121
Common bile duct exploration	10
Appendectomy (incidental)	9
Ventral hernia repair	2
Transduodenal sphincterotomy	2
Lysis of adhesions	2
One each:	
Liver biopsy	
Exploration of retroperitoneum	
Inguinal hernia repair	
Choledochojejunostomy	
Closure of ileostomy	
Right hemicolectomy	

Table 4. Antibiotic Use

Preoperative *	48
Postoperative *	51
None	33
	132

*43 cases were given antibiotics pre- and postoperatively.

Table 5. Pathology

Chronic cholecystitis	112
Cholelithiasis	115
Acute or subacute cholecystitis	23
Gangrenous cholecystitis	5
Cholesterolosis	29
Cholesterol polyps	3
Acute cholecystitis with rupture	2
Normal appendix	8
Acute appendicitis	1

Table 6. Morbidity and Mortality

Ileus	6
Diarrhea	4
Phlebitis of arm	2
Fever	2
Respiratory	2
Cardiovascular	1
GI bleeding	1
Headache	1
Urinary retention	1
Chest pain	1
Urinary tract infection	1
Bacteremia	1
Wound infections	0
Wound dehiscence	0
Death	0

excellent results. The absence of serious morbidity and the absence of mortality are demonstrated in our study.

There was a 27 percent incidence of positive bile cultures in acute cholecystitis cases. There was a 9 percent incidence of positive bile cultures in cases of nonacute biliary surgery.

The present series of cases was evaluated from the standpoint of age, sex, admitting diagnoses, presenting symptomatology, type of surgery, anesthesia coverage, the performance of operative cholangiography, the use of antibiotics, the findings by the pathologist, and the use of drains.

Our series demonstrated an extremely low morbidity rate with an absence of wound infections, an absence of wound dehiscences, and an absence of mortality.

References

1. Glenn F. Surgical treatment of biliary tract disease. NY State J Med 1962;62:203.
2. Briele HF, Long WB et al. Gall bladder disease and cholecystectomy. Am Surg 1969;35:218-22.
3. Scher KS, Scott-Conner CEH. Complication of biliary surgery. Am Surg 1987;53:16-21.
4. Glenn F, Hays DM. The causes of death following biliary tract surgery. Surg Gynecol Obstet 1952;94:283.
5. Den Besten L, Berci G. The current status of biliary tract surgery. World J Surg 1986;10:116.
6. Heuer GJ. The factors leading to death in operations upon the gall bladder and bile ducts. Ann Surg 1934;99:881.
7. Smith N, Max MH. Gall bladder surgery in patients over 60, Is there an increased risk? South Med J 1987;80:472-74.
8. Meyer KA, Capos ND et al. Personal experiences with 1261 cases of acute and chronic cholecystitis and cholelithiasis. Surgery 1967;61:661-68.
9. Magee RB, MacDuffee RC. One thousand consecutive cholecystectomies. Arch Surg 1968;96:858-62.
10. Glenn F. Trends in surgical treatment of calculus disease. 1975;140:877-84.
11. Byrd B, Jr, Griscom J. A study of cholecystectomy, 1006 cases. Ann Intern Med 1985;42:1181-86.
12. DeMarco A, Nance FC et al. Chronic cholecystitis: Experience in large charity institution. Surgery 1968;63:750-55.
13. Bartlett MK, Quinby WC. Surgery of the biliary tract. I. Mortality and complications. N Engl J Med 1956;254:154.
14. Becker WF, Powell JL et al. A clinical study of 1060 patients with acute cholecystitis. Surg Gynecol Obstet 1957;104:491.
15. Colcock BP, McManus JE. Experiences with 1356 cases of cholecystitis and cholelithiasis. Surg Gynecol Obstet 1955;101:161.
16. Colcock BP, Perey B. The treatment of cholelithiasis. Surg Gynecol Obstet 1963;117:529.
17. Dowdy GS. Complications of biliary tract surgery. Hosp Med 1965;1:28.

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Diabetes and Impotence

Doctor, I am 77 years old and have had insulin dependent diabetes for 39 years. My sex life was normal until I had a suprapubic prostatectomy about ten years ago. Since the operation I have been unable to have a penile erection. Did damage occur at the time of surgery or is this condition due to my diabetes? What can I do to improve the situation?

It is interesting that you lived for 10 years with this problem without discussing it with a physician even though you were being seen for diabetes four to six times each year. Men are hesitant to discuss sexual impotence with other people, even their physicians. A physician may make light of the situation attributing the problem to age, diabetes, psychic reasons, or a surgical procedure without evaluating the problem.

Approximately half of middle-aged diabetic males are impotent due to neurologic and vascular complications of the disease. If sexual dysfunction is of sufficient concern for the patient to mention, he and his sex partner need study and treatment. In the last fifteen years testing procedures have been perfected to the point where the cause of the impotence can be determined accurately. Testing procedures are:

1. Good history and physical examination
2. Nocturnal penile tumescence test
3. Hormonal studies
4. Psychological testing
5. Neurological evaluation
6. Vascular evaluation

If impotence is due to a correctable condition such as psychogenic, hormonal deficiency , or aortic-iliac obstruction (Leriche's syndrome), therapy is available and should be considered. If impotence is due to nerve or vascular damage from a surgical procedure or problems such as diabetes, the option of some of the following forms of therapy should be offered:

1. Better control of the diabetes
2. Discontinuance or change of unnecessary medications
3. Discontinuance of use of alcohol
4. Psychogenic support and sex education
5. Surgical options
   - Semirigid prosthetic devices
   - Hydroflex prosthesis
   - Arterial revascularization and venous ligation
6. Oral and transcutaneous pharmacologic agents
7. Suction devices

In your situation the surgical procedure could have caused impotence since you determined that it immediately followed surgery, but further discussion elicited that the quality of your erection gradually had been decreasing prior to the surgery. It is possible your impotence could have been multifactorial, including aging.

As long as the patient has libido and a willing sex partner, a complete sexual impotence evaluation and appropriate treatment are justified.

Diabetic men on chronic dialysis programs and men in the ninth decade of life have sought therapy for impotence and have been gratified with the pleasure derived after the use of some of the therapeutic methods suggested.

DeWITT E. DeLAWTER MD
Editor

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In Memoriam
Hugh Judge Jewett MD



A professor emeritus of urology at The Johns Hopkins Medical Institutions and an international authority on bladder cancer, Hugh Judge Jewett MD died May 6, 1990. He was a 40-year member of Med Chi. "Dr. Jewett's remarkable career spanned more than 50 years at Johns Hopkins," said Richard S. Ross MD, dean of The Johns Hopkins University School of Medicine. "He was a devoted member of our staff whose achievements in urology were an integral part of American medicine."

Dr. Jewett's medical career at Hopkins began in 1935 and advanced steadily through academic levels from instructor of urology to full professor and, finally, emeritus in 1969. His professional activities continued unabated throughout his 84th year.

Dr. Jewett dedicated his career to advancing the surgical specialty of urology, focusing on the two most common cancers of the genitourinary system: prostate cancer in men and bladder cancer in men and women. He was editor of the *Journal of Urology* for 11 years, a position in which he contributed much to urologic literature. He founded the *Urological Survey* in 1951 and served as its editor for 37 years. He also was on the editorial board of *Quarterly Review of Surgery*.

Dr. Jewett accumulated an impressive bibliography: his papers on the grading of both prostatic and bladder cancer established the present classification system for these tumors and the basis for rational treatment. Specifically, he introduced a way to examine the bladder and accurately stage the lesions. His work was recognized by many awards throughout his career; the most recent, in July 1988, was a Commendation of Merit Award from the AUA, the first made by the organization to honor the contribution of an outstanding physician.

Born in Baltimore in 1903, Dr. Jewett lived here much of his life. He received his AB in 1926 from The Johns Hopkins University, and graduated from the Hopkins School of Medicine in 1930. He completed his internship at Hopkins and then began his residency at St. Mary's Hospital in Pierre, SD. He rejoined Hopkins as an assistant resident in the Department of Pathology, then became a resident in urology. In 1934, Dr. Jewett accepted a residency at Ancker Hospital in St. Paul, MN. He returned the following year to complete his residency. Dr. Jewett joined the Hopkins faculty as an instructor of urology, and became a full professor in 1966.

Dr. Jewett served as a consultant from the Walter Reed Army Medical Center in Washington, DC. He also served as chairman of the Registry of Genitourinary Pathology of the Armed Forces Institute of Pathology, trustee of the American Urological Research Foundation Ind., president of Maryland Blue Shield, and councilor of the Med Chi Faculty.

In the 1972 unveiling of a portrait of Dr. Jewett commissioned by a grateful patient, then-president of Hopkins Hospital, Russell A. Nelson MD, paid this tribute: "We at Hopkins can testify to Dr. Jewett's great skill as a urological surgeon and as a doctor in care of patients.. . . He follows early Hopkins' greats in medicine."



Presidents of the three largest medical component societies in Maryland attended Baltimore County Medical Association's Annual Meeting last January. From the left, *Susan R. Guarnieri MD*, President of Baltimore City Medical Society; *Esther Edery MD*, President of Baltimore County Medical Association (holding the symbolic president's cane); and *Cheryl E. Winchell MD*, President of Montgomery County Medical Society.

■ ■ ■

R Adams Cowley MD, creator of Maryland's Shock Trauma System and a pioneer in the development of the science of trauma medicine, was honored on May 1 at ceremonies announcing the R Adams Cowley MD Fellowship, a newly created endowment that will sponsor specialized research in the area of trauma.

Special host for the ceremonies Governor William Donald Schaefer said that Cowley "established the nation's finest Shock Trauma system, which has earned Maryland a reputation for medical response that is unparalleled in America."

Governor Schaefer, former Governor Marvin Mandel, and a host of state officials were instrumental in supporting Dr. Cowley in creating the Maryland system (the only one of its kind nationwide), which annually saves the lives of thousands of trauma victims. Dr. Cowley retired in 1989 as Director of Maryland's Shock Trauma System.

The special Fellowship was created with an initial endowment made by the Charles McC. Mathias, Jr. National Study Center for Trauma and Emergency Medical Systems and the physicians from the Shock Trauma Center in Baltimore.

The National Study Center is located at the University of Maryland at Baltimore. A resource for information related to all aspects of trauma and emergency medical care, its goal is to help the country better understand the impact of serious injury and how best to deliver care to those who are injured. The idea of the Center also was an innovation of Dr. Cowley's and was created by and Act of Congress in 1986.

According to Harry Teter, Executive Director for the National Study Center, "Awards will be given to those individuals who are either established in the field of trauma research or who show great promise in researching trauma issues."

■ ■ ■

John M. Dennis MD, Dean of the University of Maryland at Baltimore School of Medicine and a member of its Class of 1945, recently received the 1990 Honor Award and Gold Key, awarded annually to a graduate of the school who has made outstanding contributions to medicine and distinguished service to mankind.

Dr. Dennis began his career at the University of Maryland at Baltimore in 1951 when he was appointed an Instructor and Associate at the Department of Radiology at the School of Medicine and University of Maryland Hospital. From 1953 to 1974, he was Professor and Chairman of the Department. He was named Dean of the School in 1974 and retired from the position on June 31, 1990.

As a boy growing up on Maryland's Eastern Shore, he lived next door to a family physician. "I never wanted to be anything else but a doctor," he says. World War II shortened his premed studies to three years; he then entered the University of Maryland at Baltimore School of Medicine pursuing an accelerated program guaranteed to graduate physicians to meet the anticipated demand for combat medical care. Dr. Dennis received his MD degree in 1945 and served in the Air Corps for two years following his graduation from medical school.

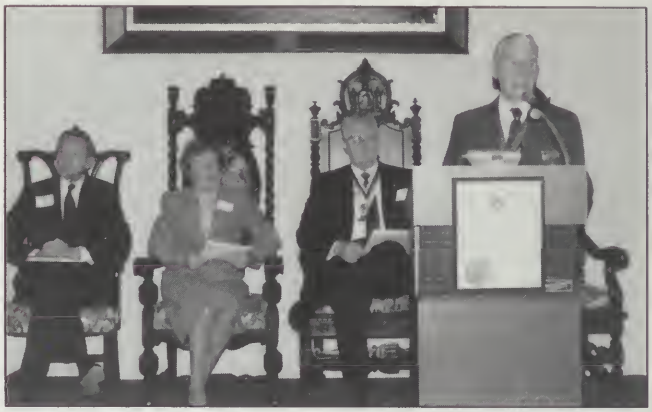
As Medical School Dean, Dr. Dennis spent 15 years prodding the US Congress and mobilizing key people to bring the Veterans Administration Hospital to the campus. He persistence paid off: construction of the 324-bed hospital began in 1987, a project that equates to a "$100 million endowment for the faculty and the research it will support, to say nothing of the educational opportunities for the students," Dr. Dennis says.

Dr. Dennis also piloted the campus itself, stepping

in as acting chancellor in 1985 following the death of Chancellor T. Albert Framer. Dennis provided crucial leadership after the state Legislature approved a bill that achieved separate governance for the hospital. With his guidance, a smooth integration of the hospital corporation and the Board of Regents, which oversees the rest of the campus, ensued.

Dr. Dennis counts as one of his biggest achievements the metamorphosis of the medical school from a "parochial" institution to one that "is not only recognized nationally for its education but also for its research," he says. Under his tenure, research grants awarded to the School of Medicine have increased by 77 percent in the last five years.

■ ■ ■



Admiral Henry P. Laughlin MD opened the Inaugural Congress of The National Congress of Patriotic Organizations in Washington last April, representing some 3,400,000 American patriots. From the left are Senator Orrin G. Hatch (Utah), keynote speaker; and hosts, Governors General Mrs. Eldred Martin Yochim DAR and James R. Westlake SAR.

A Med Chi Faculty member for nearly 40 years and an emeritus member of both the component Montgomery and Frederick County Medical Societies, Dr. Laughlin served as the Inaugural President and Moderator of the Congress.

At this same occasion Dr. Laughlin received from Governor William Donald Schaefer a Governor's Citation for his "impressive commitment to nurturing the vibrant traditions of freedom and democracy for which this great nation is widely respected, while carving out a legacy of civic pride and community service - as demonstrated by the outstanding contributions faithfully rendered by your many distinguished member organizations for the betterment of America and for the general well-being of our people...."

Currently Dr. Laughlin is Associate Editor of the *Maryland Medical Journal*, member of the Med Chi Council and President Elect of the Frederick County Medical Society. He was also the NCPO Congressional Delegate for the National Independence Day Festival and Parade Organization as Grand Marshal Emeritus. ■

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By Age 3-6 Months

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- Respond to mother's voice?
- Turn his/her eyes toward you when you call his/her name?

By Age 6-12 Months

- Turn toward interesting sound and toward you when his/her name is called from behind? (Sounds need NOT be loud)
- Understand "no" and "bye-bye" and similar common words?
- Search or look around when hearing new sounds?

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September 13-14

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October 3-6

Sixteenth Annual Topics in Gastroenterology and Liver Disease, sponsored by The Harvey M. and Lyn P. Meyerhoff Digestive Disease Inflammatory Bowel Disease Center and Department of Medicine. Fee: physicians $425, residents and fellows $210 (with letter from department chairperson verifying status; 23.5 AMA Cat I credits. Info: 301-955-2959.

October 22-27

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August 25

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September 14

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Along with manuscripts submitted to ***MMJ***, please send an IBM compatible floppy disk, with the document entered in a Word Perfect, Multimate, or Wordstar program.

The History of Medicine Collection

is attempting to build our medical artifact collection. Currently we are seeking hand-held surgical instruments, pre-1920 that were used by member Maryland physicians.

MISCELLANEOUS MEETINGS

October 25-27

New Techniques and Concepts in Cardiology Hyatt Regency Hotel, Washington DC. Sponsored by the American College of Cardiology. Info: Registration Secretary, Extramural Programs Department, American College of Cardiology, 9111 Old Georgetown Rd., Bethesda, MD 20814 (1-800-253-4636 or 301-897-5400, ext. 228).

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July 5	**Nutritional and Metabolic Aspect in Critical Care**
July 12	**Disorders of Attention in Adults and Children**
July 19	**Treatment of Malignant Ventricular Arrhythmias**
July 26	**Rehab Problems Associated with Nondominant Hemisphere CVAs**
August 2	**What's New in Chemical Dependency**
August 9	**Antibiotic Update**
August 16	**Evaluation and Management of Metastatic Bone Disease**
August 23	**Controversial Issues in Thrombolytic Therapy of Acute MI**
August 30	**Prenatal Genetic Diagnosis: 1990**
September 6	**Update in Treatment of Liver Disease and Biliary Tract**
September 13	**Nonsurgical Vascular Surgery: Laser Arteriectomy and Other Things**
September 27	**Management of the Overdose Patient**

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References
1. *USP DI Update, September/October 1988, p 120.*
2. *Br J Clin Pharmacol 1985;20:710-713.*
3. *Data on file, Lilly Research Laboratories.*
4. *Scand J Gastroenterol 1987;22(suppl 136):61-70.*
5. *Am J Gastroenterol 1989;84:769-774.*

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Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H_2-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H_2-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H_2-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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Cholesterol Testing

With great sadness, *and anger*, I read the "Faculty Position on Cholesterol Testing" (which includes "Treatment Guidelines" and "Education and Referral") in your January 1990 issue.

The entire cholesterol *business* is propagated by self-serving physicians who are benefiting from the big-scare tactic. It is certainly a factor, but a small one, in the promotion of a longer life span, and this is now recognized by the medical profession and others.

Articles from *JAMA* (July 7, 1989) and the *New England Journal of Medicine* (September 7, 1989) have tried to put this entire topic into a proper context. The *Atlantic* magazine of September 1989 includes an article by Thomas Moore, whose ideas are becoming more and more accepted.

In December 1989 I took an intensive four and a half day course in Geriatrics at New York University; the topic of "cholesterol" was mentioned by two of the speakers, only to *dismiss* it as a concern in people over age 65.

I, for one, would like to cast a protest vote *against* the Faculty Position on cholesterol testing, etc., and would like to suggest that topic again be reviewed.

MORTON J. ELLIN MD
Randallstown

■ ■ ■

Response from the Committee on Public Health

The recommendations of the Committee on Public Health were formulated after reviewing the position of the recognized national authorities on the significance of cholesterol and cholesterol testing.

We determined that the American Heart Association, the American Medical Association, the American College of Cardiology, the National Heart, Lung, and Blood Institute, and most experts in the field of cardiology and lipid disorders agree that increased blood cholesterol is a significant risk factor for the development of coronary artery disease.

In light of this fact recommendations were made that:

1. Cholesterol testing should be made available to as many persons in Maryland as possible (including the indigent and poorly served population).
2. That laboratories (outside of those already controlled) should be supervised to assure the accuracy of results.
3. That some education should be included as part of the screening.
4. That they be referred to their primary physician or usual care facility for appropriate follow-up.

The treatment parameters espoused by us (and to which you object) are those promulgated by the only established national bodies that have taken a position, *viz.* the American Heart Association, the American Medical Association, the American College of Cardiology, and the National Heart, Lung, and Blood Institute.

It is certainly true that there is ongoing controversy and discussion as to the exact cholesterol values of significance and the age-stratified risk. However, at the time of publication the universally agreed upon recommendations were the only ones published by recognized authorities.

If in fact these national organizations modify their stand, then the treatment parameters promoted by us should also be modified.

HERMAN C. MAGANZINI MD, Chairman
Committee on Public Health
Medical and Chirurgical Faculty of Maryland

■ ■ ■

Lyme Disease

This is to alert Maryland physicians to the occurrence of Lyme disease in seronegative patients. Although current tests are now supposedly more sensitive, there are several reasons for falsely negative results:

First, the test may be performed too early in the course of the disease. Patients may require three to six months after the onset of the disease before antibodies appear in the blood.[1]

Second, antibiotic use may blunt a rise in titre or cause a patient to fail to produce antibodies.[2]

Third, treated Lyme patients may have negative serology but may still be symptomatic or relapsing with the later forms of the disease.[1]

The diagnosis of Lyme disease in the face of negative serology can still be made on the basis of:

1. Exposure to tick-infested areas.
2. History of a rash that may be urticaria, a malar rash, erythema nodosum, small evanescent patches and circles, as well as the classic erythema migrans (EM). *Note*: some patients never develop a rash.
3. Presence of rheumatologic, neurologic, and/or cardiac signs. In stage 2 Lyme disease, these symptoms are fluctuating; in stage 3 the symptoms are more constant.[2]

Where there is a suspicion of Lyme disease but serology is negative, a trial course of amoxicillin or IV

ceftriaxone may prove rewarding in the diagnostic work-up.

The current trend in treatment is to avoid tetracycline due to its bacteriostatic nature in early Lyme disease.[3] (Tetracycline is ineffective in late Lyme disease.[2]) The oral treatment of choice is amoxicillin at a dose of 500 mg tid or qid, or in allergic individuals, oral cephalosporins (Ceftin®). Therapy should extend two to three weeks beyond the resolution of all signs, with therapies of four months common in cases of uncomplicated late Lyme disease. Patients should receive nystatin, acidophilus, and B vitamins, and women should have access to vaginal antiyeast products.[3] IV therapy with ceftriaxone (4 g per day in divided doses) is indicated in advanced cases or where oral therapy has failed.[2] IV therapy should be followed by oral therapy as outlined above.[3]

Regardless of text read, early treatment of Lyme disease is emphasized to avoid more serious disease. Where there is a suspicion of Lyme disease, prompt attention and adequate therapy is imperative.

An excellent, well-referenced guide to Lyme has been published by the Wisconsin Department of Health called *A Clinician's Guide Lyme Disease*, and it may be obtained by calling the Maryland Department of Health at 301-225-6266. This text is outdated on its use of tetracycline, and several physicians and personal experience indicate that erythromycin is ineffective in the treatment of Lyme disease. However, the remainder of the text appears highly accurate and pertinent at this time.

Lyme disease is a rewarding disease to see treated and a devastating disease to ignore. I know, I've been there.

References

1. The Medical Letter. 1989;31(794). This is referenced to Dattwyler RJ et al. N Engl J Med 1989;319:1441.
2. Wisconsin Department of Health and Social Services. A Clinician's Guide Lyme Disease. Jan 1989.
3. Burrascano JJ, Jr. Lyme Disease [Patient handout].

WENDY P. FEAGA DVM
Ellicott City

■ ■ ■

Commentary: Lyme Disease

Dr. Feaga correctly points out that the serologic testing for Lyme disease is problematic. One of the major concerns not mentioned is the rather extraordinary difference in performance by diagnostic kits used by various laboratories from different suppliers. The result is great variation in the accuracy with false-positive results, false-negative results, and perhaps the most frequent problem, equivocal results.

False-negative tests may be noted in the first stage of the disease since erythema chronic migrans (ECM) often predates seroconversion. Dattwyler *et al.*[1] have called attention to the possibility of false-negative tests in later stages of disease reflecting the effect of early therapy in blunting humeral response. Studies to demonstrate humeral immunity with immunoglobulin against *B. burgdorferi* were negative in 17 illustrative cases, but all showed a vigorous T-cell proliferative response to the putative agent. The implication was that early therapy caused a disassociation between T- and B-cell immune responses. However, the authors cautioned that such patients represent less than 5 percent of all patients with Lyme disease.

At present physicians will make the diagnosis of Lyme disease in the first stage by the clinical features, primarily the characteristic rash (ECM) along with appropriate symptoms and epidemiologic findings. This would constitute adequate information for therapy with doxycycline (100 mg bid) or amoxicillin (250-500 mg tid) for 10 to 21 days. For patients with neurologic, cardiac, or arthritic complications, the diagnosis generally will rest with the combination of the characteristic clinical features combined with positive serologic tests.

In my own practice are many patients who have rather vague symptoms that are compatible with Lyme disease accompanied by negative or equivocal serologic tests. The great majority of these probably do not have Lyme disease, but there is no way to be absolutely sure since the organism is rarely cultured and the serologic test used by Dattwyler *et al.* is not commercially available. I would favor empiric treatment of such patients only if they have typical symptoms accompanied by a history of early treatment for ECM.

With regard to the selection of agents for therapy, Dr. Feaga's comments are not in concert with the recommendations of consultants to the *Medical Letter*.[2] Their recommendations for treatment of early disease are summarized above. Specifically, there should be no reservation in using tetracyclines for adults with ECM since clinical efficacy appears comparable to that noted with bactericidal drugs. In stages 2 and 3 the usual recommendation is ceftriaxone (2 gm/day IV x 14 days) or penicillin G (20-24 million units/day IV x 10-14 days). For patients with less serious complications in stages 2 and 3 the recommendation is doxycycline (100 mg bid) or amoxicillin (250-500 mg tid) for three to four weeks.

References

1. Dattwyler RJ, Volkman DJ, Luft BJ et al. Seronegative Lyme disease: Disassociation of specific T- and B-lymphocyte responses to *Borrelia burgdorferi*. N Engl J Med 1988;319:1441-46.
2. Treatment of Lyme disease. Med Lett Drug Ther 1989;31:57.

JOHN BARTLETT MD, Chief
Division of Infectious Diseases
The Johns Hopkins University School of Medicine ■

Med-Chi members reading papers before organizations are invited to submit their papers to the MMJ *for consideration for publication.*

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Include in the manuscript the concise title, full name of the author (or authors) with highest degree, academic and professional titles, affiliations, and any institutional or other credits.

An introductory synopsis/abstract of approximately 100-150 words is required.

Race, creed, color, national origin, or religion shall not be included in descriptions of case reports unless such information is a necessary contribution to clinical understanding.

Tables are to be typed on separate sheets of paper, numbered, and have a brief descriptive title. The Editor reserves the right to edit tables. Be sure that statistics are consistent in both tables and text.

References are limited to those citations noted in the text. References are to be typed double-spaced and numbered consecutively as they appear in text. They will be examined critically at the time of review and must be kept to a minimum. The number of references is generally limited to 20 in major contributions and fewer in shorter articles. Exceptions may be made if appropriate in the opinion of the reviewing editor. Personal communications and unpublished data should not be included. The following are necessary: names of all authors, complete title of article cited (lower case), name of journal abbreviated according to *Index Medicus*, volume number, first and last page numbers, and year of publication. For more extensive information about preparing medical articles for publication, the editors suggest the International Committee of Medical Journal Editors: Uniform requirements for manuscripts submitted to biomedical journals. The complete document is available in the June 1982 issue of the *Annals of Internal Medicine.*

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Statements made or opinions expressed by any contributor in any article or feature published in *MMJ* are the sole responsibility of the author. ■

Rural Training Initiatives in Adolescent Health

The Cumberland Area Health Education Center (CAHEC) recently was awarded a two-year grant to initiate a multifaceted health professional training program in adolescent health. The grant from the AHEC Division of the Department of Health and Human Services, Bureau of Health Professions will begin in the fall of 1990. The project, Rural Training Initiatives in Adolescent Health, is designed to improve clinical responsiveness to the medical and healthcare needs of adolescents, increase adolescent outreach programming by health professionals, and improve multidisciplinary coordination in adolescent care.

The program will provide the health professional community with update training in many topics including substance abuse, depression, suicide prevention, AIDS counseling, and prevention of teen pregnancy. Efforts will be aimed at increasing adolescent comfort in seeking medical care and in confiding in the medical profession and establishing model school-based services that incorporate physician participation and the development of an adolescent consumer health education campaign.

The initiative was developed with the input and support of many Western Maryland health professionals and educators. According to Don Spencer, Executive Director, "When the concepts for this program were being developed in 1988, CAHEC's Interdisciplinary Health Education Council convened a roundtable to discuss adolescent needs and services....From these meetings and many hours of research and consultation the training initiative was designed." Implementing the initiative will involve physicians, health professionals, educators, public health officials and many community agencies.

CAHEC is an organization in the Maryland Statewide Medical Education Training System. In cooperation with the University of Maryland at Baltimore, the Center provides rural health professional experiences for medical and healthcare students and residents. The Center also provides off-campus education programs, offers continuing education for health professionals, conducts health promotion and community education projects, creates interagency networks, and maintains a learning resource center.

For information on the adolescent training initiative or CAHEC, call 301-777-7150.

■ ■ ■

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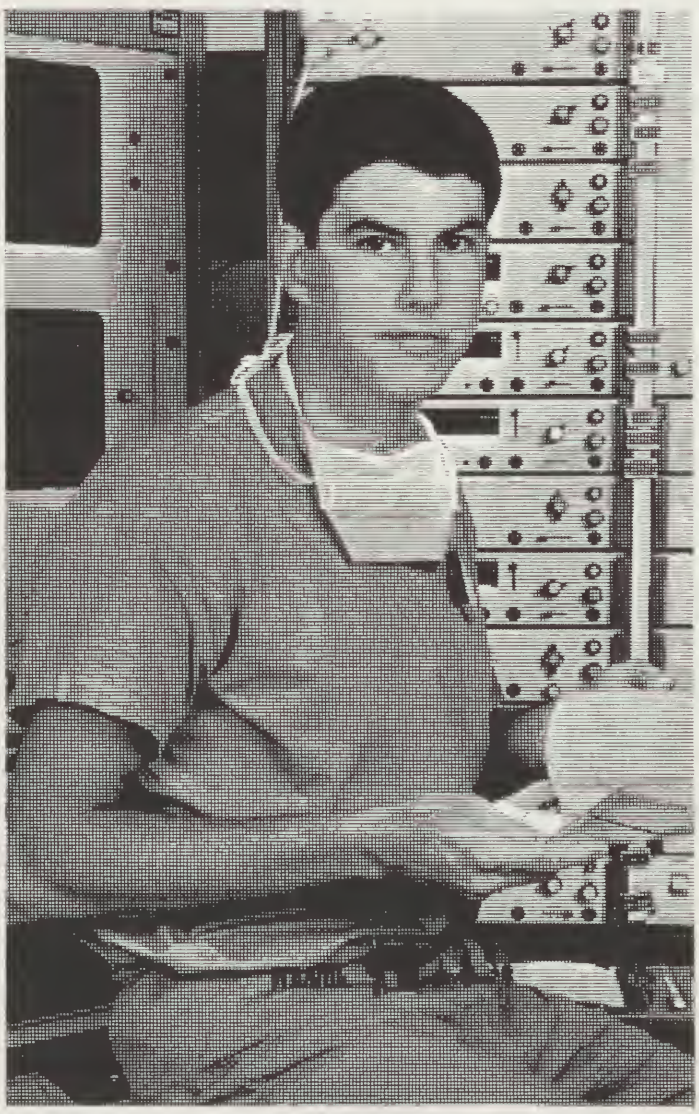
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PRACTICAL CLINICAL MANAGEMENT: DRUG ABUSE EDUCATION FOR THE PRIMARY CARE PHYSICIAN

Saturday & Sunday, October 20 - 21, 1990

Convention Center
1 East Pratt Street
Baltimore, Maryland

12 credit hours in Category I of the PRA/AMA
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The problems of alcoholism and drug addiction are ever-present in our society. The primary care physician, indeed all physicians, must be able to recognize these problems. MED CHI proudly offers the opportunity for primary care physicians to enhance their knowledge base in this critically important area. Those attending this conference will have the chance to obtain a working knowledge of the problem and learn practical techniques that can be utilized to the benefit of their patients.

The Medical and Chirurgical Faculty is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians.

SATURDAY, OCTOBER 20

8:00am- 8:30am **REGISTRATION**
(continental breakfast)

8:30am- 9:00am **OPENING REMARKS - OVERVIEW OF THE PROBLEM- DAY 1 SCHEDULE REVIEW**
Governor William Donald Schaefer
Nelson Goodman, M.D., Chairman, MED CHI Committee on Drugs

9:00am- 9:45am **THE EPIDEMIOLOGY OF DRUG ABUSE**
Herbert D. Kleber, M.D., Deputy Director for Demand Reduction, Office of National Control of Drug Dependency, Executive Office of the President of the United States.
An overview of drug abuse and its impact on medicine.

9:45am-10:00am **BREAK**

10:00am- 11:00am **EARLY DETECTION AND MANAGEMENT OF THE ALCOHOLIC**
Charles Whitfield, M.D., Whitfield Associates
How the primary care physician can identify, diagnose and assist in the treatment of the alcoholic patient.

11:00am-11:15am **BREAK**

11:15am-12:00pm **HEROIN ABUSE AND MANAGEMENT**
Donald Jasinski, M.D., Chief, Center for Chemical Dependence, Francis Scott Key Medical Center
Overview of the heroin abuse problem in America, its impact on medicine. Management of the heroin addict and how the primary care physician can assist in treatment.

12:00pm-12:45pm **THE HEALTH DEPARTMENT AS A RESOURCE TO THE PRIMARY CARE PHYSICIAN**
Maxie Collier, M.D., Commissioner of Health, Baltimore City Health Department
How the primary care physician can utilize the services of the Health Department in the education, prevention, and treatment of drug abuse.

12:45pm-2:00pm **LUNCH and GUEST SPEAKER**
Bonnie B. Wilford, Director, Department of Substance Abuse, American Medical Association

2:00pm-2:45pm **BEHAVIORAL ASPECTS OF ADDICTION**
George Bigelow, Ph.D., Director, Behavioral Pharmacology Unit, Johns Hopkins University
An examination of addiction treatment utilizing a behavioral approach.

2:45pm-3:30pm **LEGAL ASPECTS OF TREATING THE ADDICT: ESSENTIALS FOR THE PRIMARY CARE PHYSICIAN**
Alexander Williams, Esq., States Attorney for Prince George's County
What the physician must know about Maryland Law as it pertains to treatment of drug-addicted patients.

3:30pm-3:45pm **BREAK**

3:45pm-4:30pm **BENZODIAZEPINES AND CHEMICAL DEPENDENCE: CLINICAL GUIDELINES**
Robert DuPont, M.D., former Director, National Institute on Drug Abuse; President, DuPont Associates, P.A., Clinical Professor of Psychiatry, Georgetown University School of Medicine.
Recognition and treatment of the benzodiazepine abuser. Proper utilization of benzodiazepines.

4:30pm-5:15pm **PET SCAN MAPPING OF THE CEREBRAL EFFECTS OF ABUSED DRUGS**
Edythe D. London, Ph.D., Chief, Neuropharmacology Laboratory, National Institute on Drug Abuse, Addiction Research Center
An examination of the metabolic effects of abused drugs, including alcohol, in the brain in an effort to better understand the neurobiological mechanisms by which drugs alter mood, and produce "euphoria."

5:15pm-6:15pm **RECOGNITION AND MANAGEMENT OF THE ADDICT IN THE CLINICAL SETTING**
Sidney Schnoll, M.D., Ph.D., Division of Substance Abuse, Medical College of Virginia
Techniques the primary care physician can use in recognizing, diagnosing, and assisting in the treatment of patients with drug addiction.

6:15pm **ADJOURNMENT DAY 1**



Annual Report Issu

MMJ

Maryland Medical Journal

AUGUST 1990

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Endorsed by Med-Chi for Maryland Physicians

Maryland Physicians: Thanks To You, It Works.

The history of Medical Mutual is really the story of physicians working together to surmount complex problems which had defeated others. Through cooperation, persistence and the strength to make difficult decisions, the physicians of Maryland have set an example for the rest of the country.



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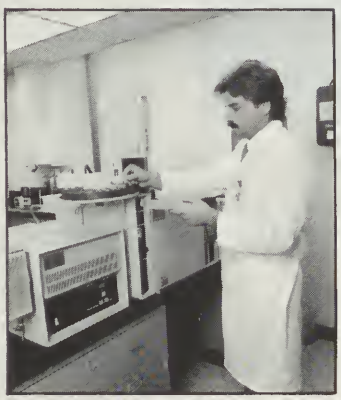
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These Committee Reports cover Med Chi's operational year, May 1989 through April 1990.

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Medical and Chirurgical Faculty of Maryland

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Cover: The medallion, gavel, and Maryland flag featured on the cover are important elements in the inaugural ceremony for the President of the Medical and Chirurgical Faculty of Maryland. The colors of black and gold on the Maryland flag represent the Calvert family, while red and white represent the Crossland family. The mother of George Calvert, the first lord of Baltimore, was in the Crossland family. It is only fitting then that the colors of red and white be worn by the leadership of Med Chi and the gold and black be worn by successive leaders. The gavel signifies the change of presidency.

During the ceremony, the incoming president receives the gavel and medallion with the red and white ribbon and recites the following oath:

> I solemnly swear, that I shall to the best of my ability, carry out the duties of the office of the President of the Medical and Chirurgical Faculty of Maryland, and that I shall strive constantly to uphold the ethics of the medical profession, and to promote the health and welfare of the public, further that I shall dedicate myself and my office to the improvement of health standards for all the people, and to the task of bringing increasingly improved medical care within the reach of every citizen, and that I shall uphold the constitution and bylaws of the Medical and Chirurgical Faculty of Maryland at all times.

Cover photo and design by Virginia Carter.
All annual meeting photos taken by Virginia Carter.

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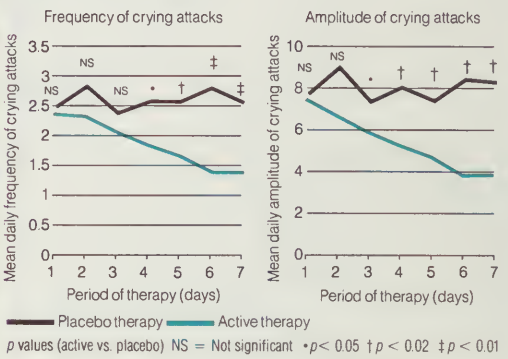
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p values (active vs. placebo) NS = Not significant •$p < 0.05$ †$p < 0.02$ ‡$p < 0.01$

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1. Kanwaljit SS, Jasbir KS. Simethicone in the management of infant colic. *Practitioner.* 1988;232:508.

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August, 1990

Selected Communicable Diseases in Maryland in 1989

(Continued)

HEPATITIS B (668)

14.3/100,000 (U.S. 9.2/100,000)

The ten year trend of hepatitis B in Maryland is shown in Figure 7. The incidence rate in 1989 decreased slightly from that in 1988 (15.1/100,000). This decline was most noticeable in Washington, Frederick and Cecil counties. The number of cases by county is shown in Table 1 (see July, 1990 issue). No seasonal

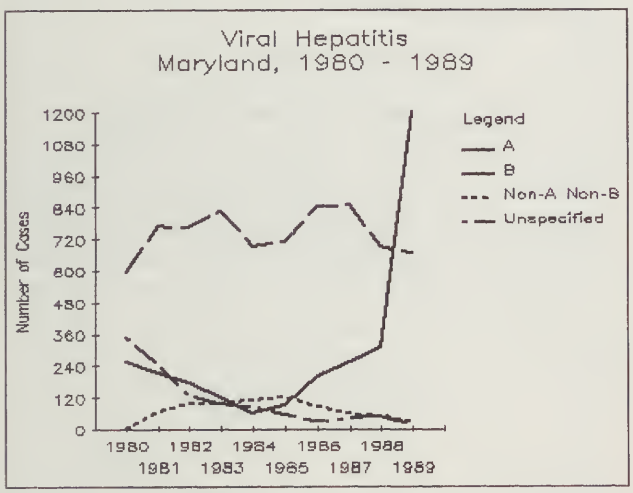


Figure 7

difference in onset of illness was observed. The male to female ratio was 1.5:1.0. The rate in whites was 8.5/100,000 and in nonwhites, 21.4/100,000. The rates per 100,000 by age group are shown in Figure 8.

A 54% increase from 1988 of reported cases in Baltimore City resulted in the highest rate (39.5/100,000) in the State. Forty-four percent of all cases in Maryland were Baltimore City residents. In the City, the male to female ratio was 1.7:1.0. The rate in whites was 26.6/100,000 and in nonwhites, 36.8/100,000. The 20 to 29 year age group had the highest incidence rate (87.8/100,000), followed by the 30 to 39 year age group (76.6/100,000).

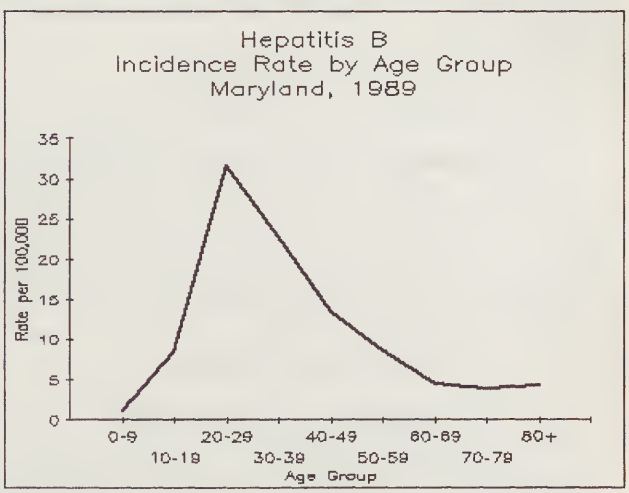


Figure 8

Information on exposure during the 6 months prior to onset of illness and probable source of infection was available on only 215 (32.2%) of the cases: 100 (46.5%) reported drug use (an increase from 40.9 % in 1988), 42 (19.5%) had contact with confirmed or suspected hepatitis B case, 15 (7.0%) - sexual exposure (hetero-, homo- and unspecified sexual activity), 10 (4.7%) - dental work, 6 (2.8%) - blood transfusion; 6 (2.8%) - surgery (including dental surgery), 5 (2.3%) - per-

cutaneous exposure (other than IV drug use, needlestick, tattoo, etc.), 5 (2.3.%) - hospitalization (unrelated to hepatitis B illness), 4 (0.9%) - needlestick, 1 (0.5%) - prenatal exposure, 1 (0.5%) - tattooing, 1 (0.5%) - ear piercing, and 18 (8.5%) - other exposures.

HEPATITIS NON A-NON B (28)

0.8/100,000 (U.S. 0.9/100,000)

The decline in the rate of nonA-nonB hepatitis which started in 1985 continued, except in Cecil County with the highest rate (7.1/100,000) in the State.

The number of cases by county is shown in Table 1 (see July, 1990 issue). No seasonal pattern was observed; cases occurred throughout the year. Eighty-six percent of the patients were white, 10.7% black, and 1 had unspecified race. The male to female ratio was 0.8:1.0. Fifty-seven percent (57.1%) were 20 to 44 years of age with peak incidence among 30 to 34 year olds; 42.9% were over 50 years of age.

Suspected source of infection during the 6 months prior to the onset of illness was reported for only 9 of the cases (32.1%):4 had received blood or blood products by transfusion, 2 had surgery, 1 - tattooing, 1 - sexual contact of a case of nonA-nonB hepatitis, and 1 patient was a homosexual IV drug user.

LEGIONELLOSIS (35)

0.8/100,000 (U.S. 0.5/100,000)

Twenty-four (68.6%) of the cases in Maryland in 1989 were laboratory confirmed; 10 (28.6%) were classified as probable cases since not all laboratory tests were known, and 1 patient refused testing. Legionellosis occurred throughout the year; no seasonal pattern was observed. The number of cases by county is shown in Table 1 (see July, 1990 issue).

The male to female ratio was 1.7:1.0. Ages ranged from 20 to 83 years (median 64.5 years). The incidence rate by age group is shown in Figure 9. The ratio of whites to non-

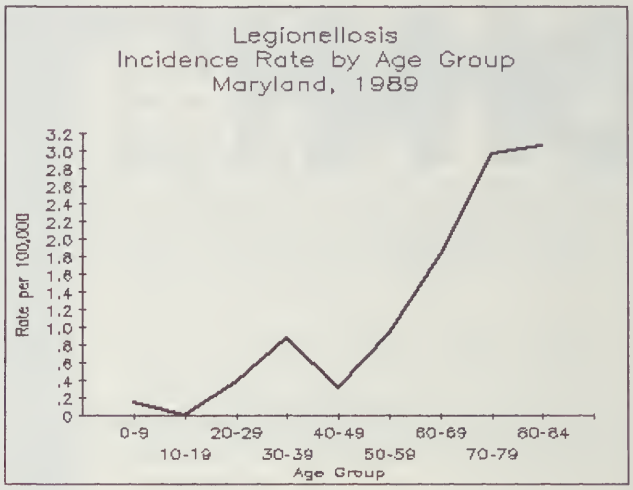


Figure 9

whites among the 31 persons with known race was 4.2:1.0.

At least 8 of all reported cases had underlying medical conditions such as cancer, diabetes mellitus, systemic corticosteroid treatment or were smokers (>10 cigarettes/day). There were 2 deaths attributed to legionellosis; both of these cases had serious underlying illness.

LYME DISEASE (138)

3.0/100,000 (U.S. Not Available)

Lyme disease is defined as a tick-borne disease with initial skin lesion (erythema migrans) and rheumatologic, neurologic and cardiac late manifestations. For the purposes of national surveillance, a case of Lyme dis-

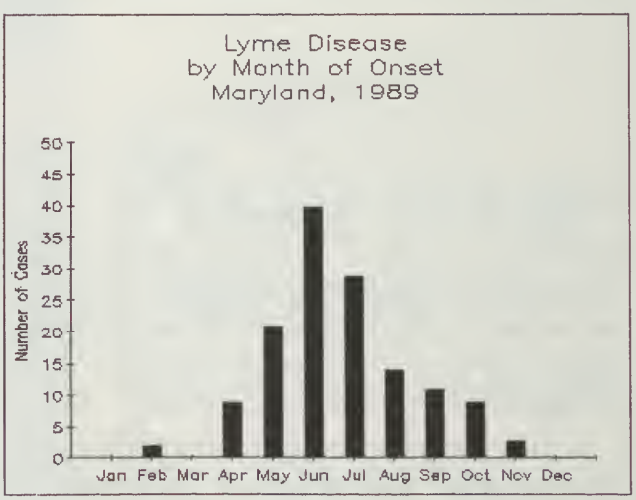


Figure 10

ease is a person with erythema migrans, or a person with at least one late manifestation and laboratory confirmation of infection (isolation of *Borrelia burgdorferi* from tissue or body fluid, or detecting IgM or IgG antibodies to *B. burgdorferi* in serum or CSF, or detecting significant change in antibody levels in paired acute and convalescent serum samples.)

There was a 150% increase from 1988 in the number of reported cases of Lyme disease. A few factors might have contributed to this dramatic increase: increasing awareness of Lyme disease among physicians and the public, adding Lyme disease to the list of reportable diseases in Maryland in 1989, and systematic investigation and follow-up of laboratory reports for Lyme disease received at the Center for Veterinary Public Health. An actual increase in the incidence is not an unrealistic possibility.

The cases by counties are reflected in Table 1 (see July,1990 issue). Kent, Queen Anne's, Calvert and Charles counties showed the highest incidence rates for 100,000 population. The male to female ratio was 1.0:1.0. The race distribution was as follows: 123 (89.1%) were white, 9 (6.8%) black, 3 (2.2%) Asian, 1 (0.7%) American Indian, and the race of 2 (1.4%) patients was not known. The age of the cases ranged from 1 to 89 years (median 32.5 years). The age distribution between the sexes was not significantly different. The most affected age groups were 30 to 39 years with 31 (22.5%) cases, less than 10 years with 27 (19.6%) and 20 to 29 years with 22 (15.9%) cases. Peak incidence was observed in May, June, and July with 21, 40 and 29 cases respectively (Figure 10). One hundred (72.5%) cases had the characteristic rash (erythema migrans), 40 (29.0%) arthritis, 29 (21.0%) neurological symptoms (Bell's palsy or meningitis), 2 (1.4%) cardiac signs along with neurologic symptoms.

Twenty-six (18.8%) cases needed hospitalization. Definite tick bites were reported in 59 (42.8%) cases and possible tick bites in 33 (23.9%). In general, exposures and tick bites were reported to have occurred within the jurisdiction of residence.

MALARIA (42)

0.9/100,000 (U.S. 0.5/100,000)

More than 83% of all cases in Maryland were reported from Montgomery and Prince George's counties. Ages ranged from 18 months to 60 years (median 28 years); the age of one patient was unknown. Twenty-four (57.1%) of the patients were black, 8 (19.0%) were Asian, 3 (7.1%) white, 2 (4.8%) Hispanic, and 5 (12.8%) were of unknown race. Twenty-seven (64.3%) patients acquired malaria in Africa, 7 in India, 1 in Afghanistan, 1 in Central and 1 in South America; the country for 5 cases was not reported. Cases with confirmed Plasmodium falciparum (24) were exposed in India (4), Africa (2), Afghanistan (1), Nicaragua (1), and in unknown country (1); those with P. vivax were exposed in India (4), Africa (2), Afghanistan (1), Nicaragua (1), and in unknown country (1), and 1 patient with diagnosed P. ovale was exposed in Africa. No data on chloroquine resistance of the P.falciparum cases was available.

MEASLES (122)

2.6/100,000 (U.S. 6.5/100,000)

Eight separate outbreaks, four of which involved high schools in 3 different counties contributed to the dramatic almost 6.5 fold increase of the reported measles cases in 1989 compared to 1988. Previously, a similar increase occurred in 1985. The ten year trend of measles in Maryland is presented in Figure 11. The Montgomery/Prince George's area was hardest hit by a community-wide outbreak among preschool children. Ten of the 24 counties in Maryland reported at least 1 case. Three peaks months of onset of measles were observed: May, August, and December. The age of the cases ranged between 6 months and 44 years. The age distribution is shown in Figure 12. The male to female ratio was 1.0:1.0. The whites to blacks ratio was 1.6:1.0. The ratio of imported to indigenous measles was 0.5 : 1.0. Of 15 preschool cases (16 months through 4 years of age), only one (6.7%) had been immunized; 45 of 55 (81.8%) of school age cases (5 through 18 years old) had been immunized; 24 (53.3%) of the 45 who had

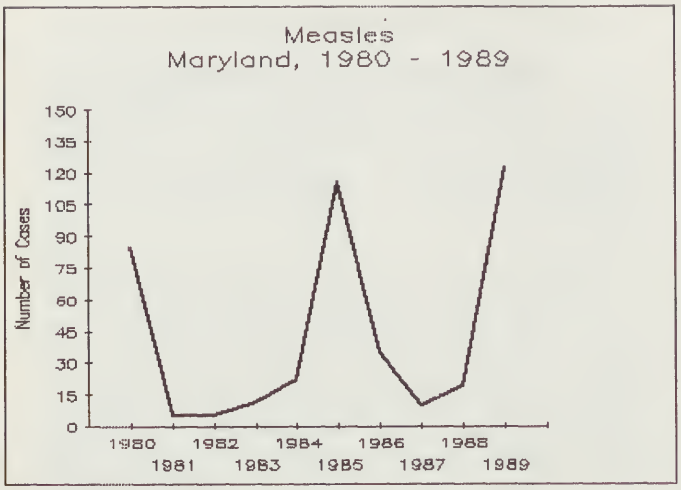


Figure 11

been immunized had received vaccine prior to 15 months of age.

The new ACIP and AAP Guidelines for Measles Control issued in 1989 recommend a second dose measles-mumps-rubella (MMR) vaccine for all children; the ACIP recommends the second dose at school entry while the AAP recommends the second dose at middle school entry. DHMH supports the second dose at middle school entry.

MENINGITIS, VIRAL (ASEPTIC) (246)

5.3/100,000 (U.S. 4.0/100,000)

Increased morbidity, mainly in Baltimore, Montgomery, and Prince George's counties, contributed to the 15.5% increase over the number of reported cases in 1988. All counties, except Garrett County, had at least 1 case (Table 1; see July, 1990 issue).

The highest rate (26.6/100,000) was observed in Dorchester County and was due to a cluster in September and October of 7 cases, 3 of whom were 1 to 5 months old. Overall, the onsets of illness were concentrated in the summer months. The male to female ratio was 1.2:1.0. The whites to nonwhites ratio was 1.8:1.0; for 11 individuals the race was unknown. More than one-third (34.1%) of all patients were 20 to 34 years of age; over one-fifth (21.1%) were less than 7 months of age, including 18 newborns. The etiology (enterovirus) was reported for only one case.

MENINGOCOCCAL DISEASE (78)

1.7/100,000 (U.S. 1.0/100,000)

An increase of 36.8% in the number of reported cases of meningococcal disease was observed in 1989 (Figure 12). More than one-third (34.6%) of the cases were diagnosed in the winter (January, February and December), and another 31% in May, June, and July. Thirteen counties and Baltimore City reported cases (Table 1; see July, 1990 issue). The highest number of cases (13) was reported from Anne Arundel County for a rate of 3.0/100,000.

The male to female ratio was 1.1:1.0. The white to black ratio was 4.1:1.0; the race of 6 individuals was unknown. While cases were noted in every age group, 31 percent were less than 18 months of age, including 12 (15.4%) between 1 and 5 months of age. No newborns were affected.

Forty-one (52.6%) patients presented with meningitis, 26 (33.3%) with meningococcemia, 4 had pneumonia, 3 pharyngitis, 1 otitis media, and 3 infections were not specified.

For 20 of the cases, the serogroup of the *N. meningitidis* was reported as follows: B (8), C (5), A (3), W135 (3), and Y (1). Seven (11.5%) of 61 patients (1 day to 75 years of age) for whom outcome was known, died, 2 had meningitis, 4 meningococcemia and 1 pneumonia. (Continued Next Month)

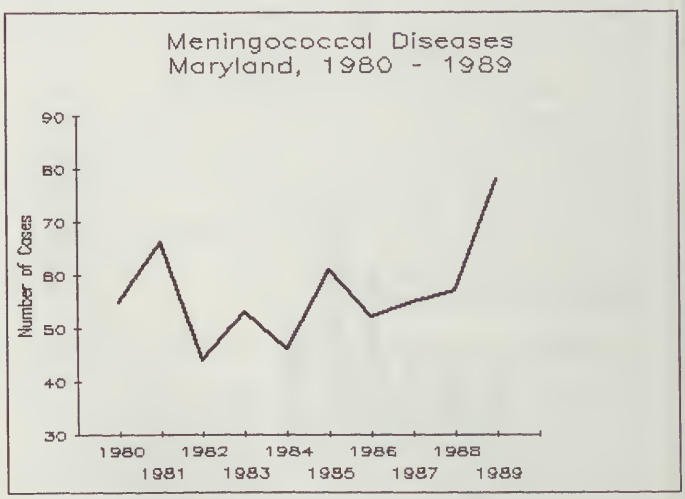


Figure 12

A MEDICAL TEST SHOULD **NOT** SCARE PEOPLE HALF TO DEATH!

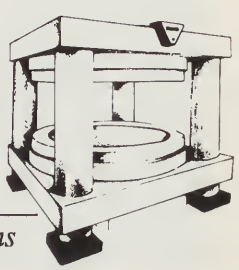


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References
1. USP DI Update, September/October 1988, p 120.
2. Br J Clin Pharmacol 1985;20:710-713.
3. Data on file, Lilly Research Laboratories.
4. Scand J Gastroenterol 1987;22(suppl 136):61-70.
5. Am J Gastroenterol 1989;84:769-774.

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Brief Summary. Consult the package literature for complete information.

Indications and Usage: 1. *Active duodenal ulcer*—for up to eight weeks of treatment. Most patients heal within four weeks.

2. *Maintenance therapy*—for healed duodenal ulcer patients at a reduced dosage of 150 mg h.s. The consequences of therapy with Axid for longer than one year are not known.

Contraindication: Known hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other H_2-receptor antagonists.

Precautions: *General*—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

Laboratory Tests—False-positive tests for urobilinogen with Multistix® may occur during therapy.

Drug Interactions—No interactions have been observed with theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H_2-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H_2-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H_2-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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Adjuvant Therapy For Carcinoma of the Rectum

Adjuvant therapy is a therapeutic modality which is to be initiated within four weeks of potentially curative surgery in patients who are at high risk of recurrence or metastases such as those with Dukes' B or C carcinoma. Three studies will be reviewed in order to place the current status of adjuvant therapy for this disease into perspective.

The Gastrointestinal Tumor Study Group (GITSG) was the first to report a beneficial effect for adjuvant therapy.[1] Because of the influence that their findings may have on the management of patients with rectal cancer, it is essential to review these data. Protocol 7175 started patient accrual in 1975 and was terminated in September 1980, after 227 patients were randomized; 202 of whom were available for evaluation. In this study, the rectum was identified as 12 cm from the anal verge. These patients were randomized into four treatment arms after potentially curative surgery: 1. Control: no further treatment; 2. Chemotherapy: 5-FU and Methyl-CCNU; 3. Radiation therapy: 4000 to 4800 rad over 4 1/2 to 5 1/2 weeks; 4. Combination of 2 and 3. The initial projected sample-size estimates were for 520 patients to be evaluated in order to detect a 50 percent increase in median survival time from 2 to 3 years. In February 1980, it was noted that one of the randomized arms was inferior to the other three. The group with the poorest results proved to be the control group, and therefore, no more patients were entered into this arm. However, the protocol was discontinued shortly after this time, leaving a small number of patients in each group and not meeting the required quota; 58 were control, 48 received chemotherapy, 50 received radiation therapy, and 46 combination therapy.

The results at 80 months of follow-up revealed recurrence rates of 55 percent in the control group, 46 percent in the chemotherapy-treated group, 48 percent in the radiotherapy-treated group, and 33 percent in the chemoradiation-therapy treated group (P=.000). The strongest therapeutic benefits were evident in patients with Dukes' C lesions with fewer than 5 positive nodes. Analysis at site of recurrence again suggested an advantage in favor of the combined treatment arm. While the early results indicated no overall survival benefits, subsequent analyses have suggested survival benefits for the combined treatment. However, two treatment-related deaths in the combined treatment arm were attributed to radiation enteritis. The toxicity of this combined therapy has been addressed in GITSG protocol 7180, comparing 5-FU+Methyl-CCNU vs 5-FU only with the radiation. Such data must be regarded as a major conceptual advance, and as an important initial indicator of the value of adjuvant therapy in those patients with Dukes' B and C disease. However, with only 46 patients available in the group demonstrating the greatest benefit and with the magnitude of major toxicity encountered, it would be premature to apply to patients outside the context of clinical trials.

The North Central, Duke, and Mayo Clinics conducted two-arm studies. Two-hundred patients were randomized to receive radiation therapy or radiation therapy together with chemotherapy (Methyl-CCNU and 5-FU).[2] In this study, the radiation therapy was deferred until the full cycle of chemotherapy was administered in the hope of avoiding the delays of the initiation of the chemotherapy noted in GITSG 7175.[1] The early results strongly suggest that a combination of chemotherapy and irradiation is superior to radiation therapy alone. Recurrences were noted in 38 patients (20 local) in the radiation group, compared to 23 (11 local) in the combined treatment group. Seven patients developed major radiation enteritis.

The National Surgical Adjuvant Breast and Bowel Project (NSABP) initiated their first study, Protocol-R-01, in 1977. They randomized 574 patients with Dukes' B and C rectal cancers into three treatment arms after potentially curative surgery: 1. Control: no further treatment. 2. Chemotherapy: 5-FU+Methyl-CCNU+Vincristine. 3. Radiation therapy: 3,200 to 4,000 rads in 18 to 22 fractions at the central midline. In this study, rectal tumors were defined as those that required opening of the pelvic peritoneum during surgery to reach for the lower end (distal margin) of the tumor. At 78 months of follow-up, there was a significant disease-free survival advantage in favor of the group receiving chemotherapy compared to the control (P=.005) with an overall survival advantage that is significant at P=.03. Futhermore, the disease-free survival was more significant in the male patients (P<.001). On the other hand, there was no difference in disease-free survival or overall survival when radiotherapy was compared to the untreated control. However, there was reduction in the incidence of loco-regional recurrence from 25 percent to 16 percent (P=.06).[3]

Three patients, out of 574 patients who were treated with 5-FU and Methyl-CCNU on colon and rectal protocols by NSABP, developed acute non-lymphocytic leukemia, compared to seven of 94 patients on GITSG Protocol 7175. In addition, one patient developed delayed nephrotoxicity on the NSABP studies which is dose-related to Methyl-CCNU administration.

In the mean time, preclinical pharmacologic interactions predicted increased efficiency of 5-FU with the addition of leucovorin. In a phase III clinical trial, high dose leucovorin + 5-FU was found to have a much higher response rate in patients with metastatic colorectal cancer.[4] The gastrointestinal toxicity, main-

ly in the form of severe diarrhea, is a serious side effect for patients receiving leucovorin modulated 5-FU, especially during the first course. Failure to modify doses or failure to provide I.V. supportive care can result in fatal gastrointestinal/renal toxicities.

Based on the above findings, the NSABP established Protocol R-02, in which male patients who have undergone curative surgery and have been found to have Dukes' B or C disease will be randomized to receive: 5-FU+Methyl CCNU+vincristine with or without radiation therapy, or leucovorin modulated 5-FU with or without radiation therapy. On the other hand, the female patients will be randomized to receive (no 5-FU, Methyl-CCNU, and vincristine) leucovorin modulated 5-FU with or without radiation therapy. This study is open for patient accrual.

At the University of Maryland, call E. George Elias MD at 328-5224; at Mercy Medical Center, call Marvin J. Feldman MD at 783-5858; at Harbor Hospital, call Russell DeLuca MD at 347-3386; in the Cumberland area, call John Mehanna MD at 724-5112; and in the Hagerstown area, call Frederic Kass MD at 733-8600.

References

1. Gastrointestinal Tumor Study Group, Prolongation of the disease-free interval in surgically treated rectal cancer. N Engl J Med 1985;312:1465-72.
2. Krook J, Moertel C, Wieand H, et al. Radiation vs sequential chemotherapy - radiation - chemotherapy: A study of North Central Cancer treatment group, Duke University and Mayo Clinic. Proc Am Soc Clin Oncology 1986;5:318.
3. Fisher B, Wolmark N, Rockette H et al. Postoperative adjuvant chemotherapy or radiation therapy for rectal cancer: Results from NSABP Protocol R-01. J Natl Cancer Inst 1988;80:21-30.
4. Petrelli N, Stablein D, Bruckner H et al. A prospective randomized phase III trial of 5-fluorouracil vs 5-FU+high dose leucovorin vs 5-FU+low dose leucovorin in patients with metastatic colorectal adenocarcinoma: A report of Gastrointestinal Tumor Study Group. Proc Am Soc Clin Oncology 1988;7:21-30.

E. GEORGE ELIAS MD, PhD
Professor of Surgery & Oncology
Director, Surgical Oncology Program

Tumor conferences are held weekly on Tuesday between 8-9 a.m. in Room N13E28 at the University of Maryland Medical System. Physicians are welcome to attend this open meeting and to present cases and pathological slides. Call 328-5224 by noon Monday to be placed on the schedule.

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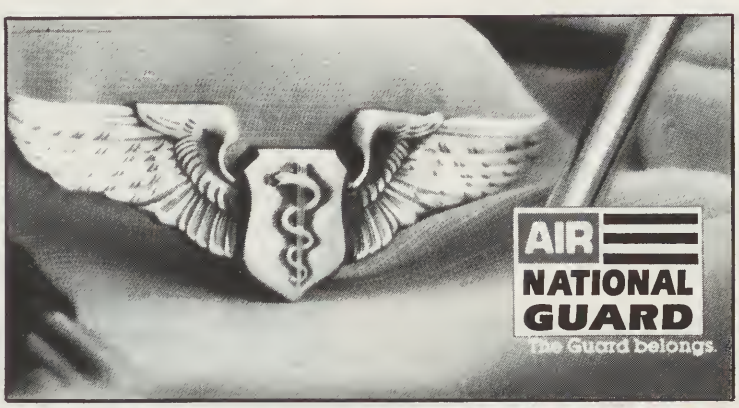
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Executive Director's Newsletter

August 1990

October Drug Conference

Attached to the cover of this *MMJ* is a brochure on "Practical Clinical Management: Drug Abuse Education for the Primary Care Physician," a seminar dealing with the problems associated with alcoholism and drug addiction. Med Chi encourages all Maryland physicians to attend this seminar on Saturday, October 20, and Sunday, October 21, 1990 at the Baltimore Convention Center on 1 East Pratt Street. Med Chi designates 12 Category I CME credits for this seminar, and it is acceptable for 12 prescribed hours by the American Academy of Family Physicians. To register for the seminar fill out the application on the back cover. For more information contact Michael Llufrio at 301-539-0872 or toll free at 1-800-492-1056.

Med Chi Semiannual Meeting

Med Chi encourages all Maryland physicians to attend its Semiannual Meeting on September 13-15, 1990 at the Royal Princess Ocean Suite Hotel in Ocean City. Please note in the revised preliminary program following this newsletter that Council will meet on **Friday, September 14 at 1:15 p.m.** Med Chi made this change to simplify travel plans for physicians required to attend the Council and House of Delegates meetings. Additionally, the symposium on the "Maryland Access to Care Program" will be on Thursday, September 13 at 1:15 p.m. Sidney Schnoll MD, PhD will speak on "New Directions in Continuing Medical Education on Substance Abuse" during the workshop on Saturday, September 15 at 9 a.m. Recently, Med Chi invited Gail Wilensky PhD, Director of the Health Care Financing Administration, and Robert McAffe MD from the AMA Board of Trustees to speak during the meeting. Updates on the program will appear in the September edition of this newsletter.

Maryland Physician License Renewals

The Board of Physician Quality Assurance is conducting its biennial renewal of medical licenses in Maryland. **If your last name begins with A through L, your current license will expire on September 30, 1990. You should return your application for renewal by August 28, 1990 to assure processing by September 30th.** If you do not receive a renewal application by August 15, 1990, please contact Paul A. Roeger, Director of Physician Licensure Programs at the Board 301-764-4777.

Physician Assistants Regulations

Physicians should note that Maryland law requires physician assistants to perform only those delegated medical acts outlined in the job description submitted to the Board of Physicians Quality Assurance. "Job description means a document executed by a physician assistant and physician that has been approved under this title to permit the delegation of medical acts to a certified physician assistant" (HO.Sec.14.5-101(f)). Any physician assistant who performs medical acts (or any physician who aids that practice) not outlined within the job description is subject to disciplinary action by the Board. (HO.Sec.14-504(a)(18), Sec.14-5312(5)).

Legibility of Prescriptions

The Maryland Board of Pharmacy recently received several complaints from pharmacists regarding the legibility of prescriptions and physicians signatures. To prevent dispensing errors and reduce time-consuming calls to verify prescription information, Med Chi encourages physicians to insure that their prescriptions and signatures are clear and comprehensible.

Medicaid Patients Less Likely to Sue

According to a report from the US General Accounting Office, Medicaid recipients are less likely to sue physicians than are other patients. The GAO report indicates that 5.8 percent of claims for which insurance coverage is applicable sue, compared to 9 percent of the US population. This suggests that low-income patients are less likely to sue. Although the study is not clear in showing the degree to which rates of suit vary among institutionalized and noninstitutionalized Medicaid recipients, it does indicate that large number of Medicaid recipients are elderly nursing home residents who are less likely than the general population to sue.

Medicare Physician Regulation Relief

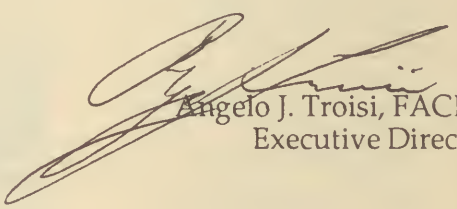
Med Chi recently sent letters to all Maryland U.S. Congressional representatives supporting H.R. 4475, "Medicare Physician Regulation Relief Amendments of 1990," in an effort to alleviate the burden of compliance with excessive Medicare regulations. If passed this legislation would:

- Provide physicians with more complete information on Medicare utilization review policies. If physicians are subject to penalties it is only fair that they be provided with advance knowledge of payment limits.
- Allow physicians to continue long-standing reciprocal agreements whereby a colleague cares for patients when the attending physician is not available.
- Amend Medicare reconsideration and appeal rules to allow state medical societies or other professional organizations to appeal payment denials on behalf of an entire class of physicians.
- Establish a physician advisory group to review Medicare Part B policy, requirement, and Medicare carrier implementation issues.
- Prohibit Medicare carriers from charging physicians for information necessary for compliance with Medicare law and regulations.

As of June 25, 1990 Representatives Roy Dyson and Constance A. Morella are the only confirmed cosponsors of this bill from Maryland. Med Chi urges all physicians to write to their representatives and request their cosponsorship for H.R. 4475. For more information regarding H.R. 4475 contact Betsy Newman in Med Chi's Public Relations Department at 301-539-0872 or toll free at 1-800-492-1056.

New AMA Executive Vice-President

On June 19, 1990 James S. Todd MD became the Executive Vice-President of the AMA. Dr. Todd has been the AMA's Acting Executive Vice-President since February 1990 after serving as Senior Deputy Vice-President since 1985. Dr. Todd was a member of the AMA Board of Trustees from 1980 to 1984 and served as Commissioner to the Joint Commission on Accreditation of Hospitals from 1982 to 1985. John J. Ring MD, Chairman of the AMA Board of Trustees remarked on Dr. Todd's appointment saying, "Dr. Todd is a superb administrator as well as an excellent advocate for physicians and their patients on Capitol Hill."



Angelo J. Troisi, FACHE
Executive Director

Semiannual Meeting

Medical and Chirurgical Faculty of Maryland

September 13 - 15, 1990
Thursday - Saturday

Royal Princess Ocean Suite Hotel
Oceanfront at 91st Street
Ocean City, Maryland 21842

Revised Program



The Medical and Chirurgical Faculty of Maryland is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians.

1990 Semiannual Meeting

Thursday, September 13, 1990

8:00 am - 5:00 pm
Registration

9:00 am - 5:00 pm
Exhibits Open

8:15 am - 9:00 am
Opening Remarks - Reynaldo L. Lee-Llacer, M.D., President
Speaker to be announced

9:00 am - 12:15 pm
Year of the Infant Symposium
"Child Abuse: The Physician's Responsibility" - Charles Shubin, M.D., Nevett Steele, Esq., Giselle Meek, M.S.W.
Cosponsored by Medical Mutual Liability Insurance Society of Maryland with the cooperation and support of the law firm of Whiteford, Taylor and Preston

9:45 am - 10:15 am
Break (Visit Exhibits)

12:15 pm - 1:15 pm
Lunch Break

1:15 pm - 3:15 pm
Symposium
"Maryland Access to Care Program" -
Planned by the Liaison with the Medical Assistance Program
Gary Rosenberg, M.D., Mary Mussman, M.D., Nelson Sabatini

1:15 pm - 3:15 pm
Workshops
"Wellness/Preventive Health Programs that Work" -
In cooperation with BC/BS of Maryland - Speaker to be announced
"Depression: Clinical Guidelines" - In cooperation with Burroughs Wellcome - Speaker to be announced

3:15 pm - 3:45 pm
Break (Visit Exhibits)

3:45 pm - 5:45 pm
Bioethics Symposium
Planned by the Committees on Professional Ethics, Medicine and Religion
"The Right to Die: Issues and Dilemmas - Medical, Legal, Economic, Social, Ethical, Religious" - Speaker to be announced

Friday, September 14, 1990

8:00 am - 5:00 pm
Registration

8:00 am - 5:00 pm
Exhibits Open

8:45 am - 12:15 pm
Cardiovascular Forum
"Diagnosis & Treatment of LVH" - John Gottdiener, M.D., FACC, Georgetown University School of Medicine
"Current Status of Valvular Surgery" - John Moore, M.D., FACS, Medical College of Georgia
"Interventional Radiology" - Fred Osterman, M.D., Chief of the Division of Interventional Radiolgy, Johns Hopkins University School of Medicine



9:45 am - 10:15 am
Break (Visit Exhibits)

12:15 pm - 1:15 pm
Lunch Break

1:15 pm - 3:15 pm
Council Meeting

3:15 pm - 3:45 pm
Break (Visit Exhibits)

3:45 pm - 5:45 pm
Panel Presentation

"Emergency Departments: The Dilemmas of Overcrowding for the Primary Care Physician" - Moderator: Brian Browne, M.D., University of Maryland School of Medicine
In cooperation with the American College of Emergency Physicians, Maryland Chapter

Saturday, September 15, 1990

8:30 am - 12:00 pm
Registration

8:30 am - 12:00 pm
Exhibits Open

9:00 am - 12:00 pm
Workshops

"Smoking Cessation - Proven Techniques in Helping Your Patients Stop Smoking" - Kevin Ferentz, M.D., Carmine M. Valente, Ph.D.
"Challenge of Malpractice Litigation to Clinical Practice" - Donald DeVries, Esq.
"Physician Retirement: Implications for your Clinical Practice Management" - With cooperation and support from the First National Bank of Maryland - Speaker to be announced
"New Directions in Continuing Medical Education on Substance Abuse" - Sidney Schnoll, M.D., Ph.D.

12:00 pm - 1:00 pm
Lunch Break

1:00 pm - Adjournment
House of Delegates

The Medical and Chirurgical Faculty designates this continuing medical education activity for 15 credit hours in Category I of the Physicians Recognition Award of the American Medical Association. ***A Certificate of Attendance will be issued.***

The Medical and Chirurgical Faculty of Maryland

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About the Royal Princess: Med Chi has selected the Royal Princess for this year's Semiannual Meeting because of its all-new, state-of-the-art, meeting and exhibit facilities.

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For hotel reservations call: 1-800-63-ROYAL or 1-301-524-7777. Please identify yourself as eligible for the Med Chi special group rate. Deadline for hotel reservations is August 15, 1990.

REGISTRATION FORM

Med Chi Semiannual Meeting

September 13-15, 1990

Royal Princess Ocean Suite Hotel/Ocean City, Maryland

Registration Fees:

_____**Med Chi Members** - No charge
_____**Non-Member Physicians** - $150.00
_____**Allied Health Professionals** - $35.00
_____**Students/Residents** - No charge

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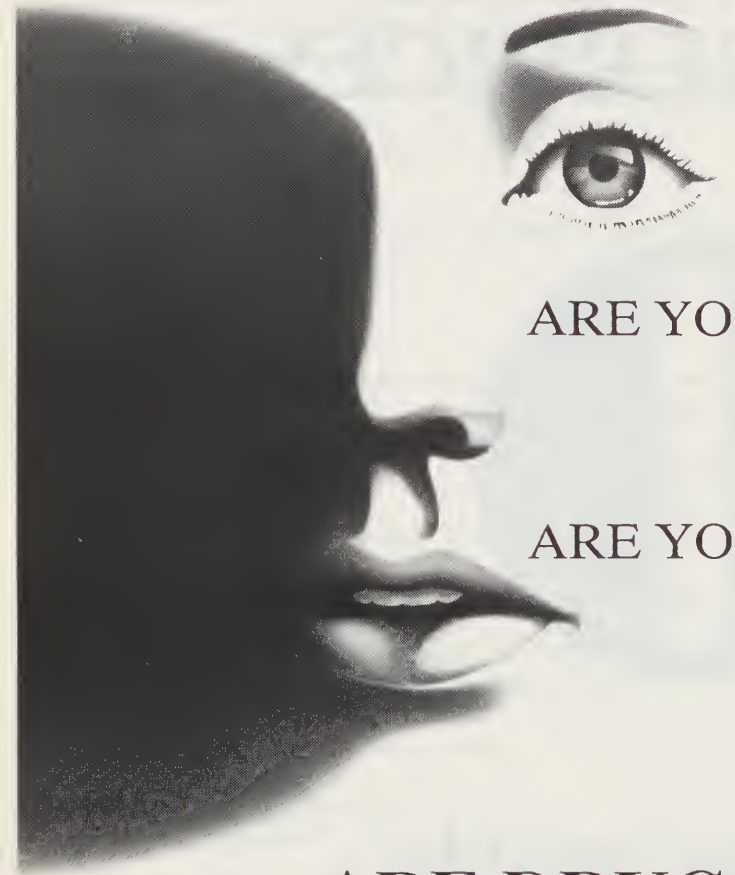
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ARE DRUGS THE TRUTH?

Learn how to diagnose, treat, and prevent drug abuse in your patients.

Attend "Practical Clinical Management: Drug Abuse Education for the Primary Care Physician" on Saturday and Sunday, October 20-21, 1990 at the Convention Center in Baltimore.

See the attached brochure and the article on page 719 for more information.

Medical and Chirurgical Faculty of Maryland

Physician Rehabilitation Committee

Physicians Address Drugs as a Healthcare Issue

If Family Doctors and Primary Care Physicians don't get involved, the [drug] problem will fester, proclaims Nelson Goodman MD, Chairman of the Committee on Drugs of The Medical and Chirurgical Faculty of Maryland. The Committee is sponsoring "Practical Management: Drug Abuse Education for the Primary Care Physician," a conference to be held on Saturday and Sunday, October 20-21, 1990, at the Convention Center in Baltimore. The conference will fulfill 12 CME credits in Category I of the Physician's Recognition Award of the American Medical Association. Legal, behavioral, and biological aspects of addiction will be addressed.

Dr. Goodman hopes the conference will help establish a rapport between the legal and the medical community. Alexander Williams Esq., States Attorney for Prince George's County, will speak on the "Legal Aspects of Treating the Addict: Essentials for the Primary Care Physician." Dr. Goodman comments that many officials offer more police and more jails as solutions to the drug abuse problem, but he stresses that "drug abuse is a medical problem--a psychological, physical, chemical problem." Those attending the conference should already be aware that something needs to be done but Dr. Goodman hopes the conference will teach primary care physicians how to recognize the early signs of addiction, what to do when they see a potential drug abuser, the illnesses related to drug abuse, and how to treat and refer their patients.

Noted professionals will address October's conference including Sidney Schnoll MD, PhD, Division of Substance Abuse, Medical College of Virginia, and Robert DuPont MD, former Director, National Institute on Drug Abuse. One of the first speakers will be Charles Whitfield MD who will discuss the "Early Detection and Management of the Alcoholic and Chemical-Dependent Person." Dr. Whitfield states that "physicians have traditionally not been taught about how to deal with chemical dependency; and even today they are not being taught adequately." He will discuss the questions physicians need to ask in the interview, things to look for in the evaluation and physical examination, diagnostic surveys, blood and urine testing, and the basic treatment of chemical dependence. Dr. Whitfield hopes the conference will result in physicians "making an earlier diagnosis of chemical dependence and in offering appropriate treatment, including referrals."

As well as the overall problem of drug dependency, specific drugs that are a problem will be scrutinized. Heroin, benzodiazepines, amphetamines and cocaine will be highlighted by various speakers.

Maxie Collier MD, Commissioner of Health, Baltimore City Health Department, will speak on the "Health Department as a Resource to the Primary Care Physician." Dr. Collier feels that at the present time many people treat drug abuse as a special problem. Dr. Collier wishes drug abuse would be treated like other medical problems and he hopes that physicians will "become more interested in seeing drug abuse as a primary healthcare problem."

Dr. Goodman feels that this conference is "a vital thing for the public health" and hopes that this weekend conference will be "a model for courses everywhere." Dr. Goodman and the Committee on Drugs encourage all physicians to attend this conference. A detailed brochure and registration form is attached to this issue of the *MMJ*. ■

MRI UPDATE



Figure 1

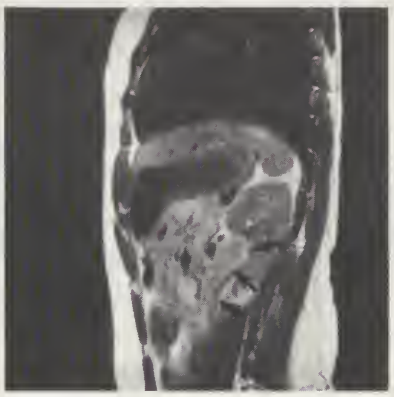


Figure 2



Figure 3

CLINICAL HISTORY: This is a 25-year-old female with complaints of left sided flank pain, nausea, and vomiting.

FINDINGS: Figure 1 represents a coronal T1-weighted image through the kidneys. A lobulated soft tissue mass conforming to the approximate shape of the left renal pelvis and the lower pole collecting system can be identified (large arrow). Signal intensity is intermediate and there is a central area of decreased signal intensity probably representing necrosis. Figure 2 is a sagittal image through the left kidney. In this projection, the soft tissue mass is comma shaped and can be identified extending from the left renal pelvis into the proximal left ureter (small arrows). Figure 3 is a T2-weighted image which exhibits increased signal intensity in the periphery of the mass and central decreased signal intensity. A curvilinear low signal structure lies medial to the mass and is felt to represent the left renal vein displaced by the mass. The vein appears to be patent as evidenced by the low signal intensity indicative of flowing blood (small arrows). No adenopathy is identified. There is no evidence of extension of the mass beyond the margins of the left renal pelvis or the proximal left ureter.

MR IMPRESSION: The location and shape of the soft tissue mass is typical for a transitional cell carcinoma.

MR NOTES: MR of the kidneys is a noninvasive procedure yielding both static and dynamic information about the pathologic process in question. In this case, the MR images defined the presence of the soft tissue mass in the left kidney, the confinement of the soft tissue mass to the left renal collecting system and the proximal left ureter, and the lack of invasion into the kidney and the adjacent pararenal soft tissue structures. In addition, the MR scan demonstrated that there is no evidence of thrombosis of the left renal vein nor is there evidence of tumor into the vein. MR imaging of the kidney is a noninvasive procedure allowing both anatomic identification of renal masses, staging of the extent of those renal masses, and determination of the presence or absence of renal vein involvement for surgical planning.

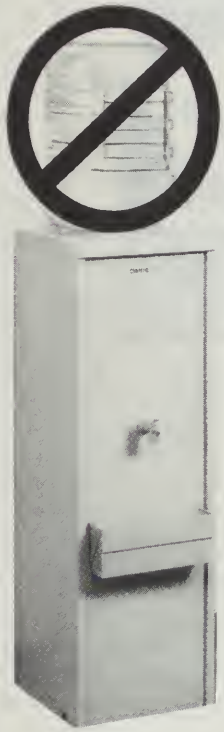
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November 16-17, 1990
1991 Dates to be Announced

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As an organization accredited for continuing medical education, the Mercy Hospital Center designates this continuing medical activity as meeting the criteria for 10 credit hours in Category 1 of the Physician's Recognition Award fof the American Medical Association.

Highlights: Executive Committee and Council Actions

Council - March 15, 1990
382nd Meeting

Minutes The Council minutes of January 18, 1990 were adopted as amended. The Executive Committee minutes of December 21, 1989 were adopted.

Committee on AIDS The Committee's report of its December 20, 1989 meeting and its January 15, 1990 meeting were submitted for Council's approval. Having no recommendations, the reports were approved as submitted.

Dr. Michael R. Dobridge motioned to forward the AMA's Board of Trustees Report X to the Committee on Aids for its review and report to the Council. The motion was seconded and approved.

Committee on Professional Ethics Dr. Louis C. Breschi presented the Committee's report of January 9, 1990, which was approved as submitted. Dr. Breschi also presented a request for approval of Ethical Opinion 409, "Responsibility of Physician to Patient as Affected by Contractual Agreements" as follows:

> A PHYSICIAN WHO HAS A CONTRACTUAL AGREEMENT TO TREAT PATIENTS CONTINUES TO HAVE THE PATIENT AS HIS PRIMARY CONCERN, REGARDLESS OF THE PHYSICIAN'S SOURCE OF COMPENSATION. IF A CONFLICT OCCURS BETWEEN THE PATIENT'S WELL BEING AND THAT OF THE CONTRACTING AGENT, THE PHYSICIAN MUST DECIDE IN FAVOR OF THE PATIENT.

After discussion, the Council adopted a motion to approve the ethical opinion as presented.

Committee on Specialist Identification Dr. Jose M. Yosuico, speaking on behalf of the Committee Chairman, Dr. Joseph I. Berman, presented the Committee's recommendations. The recommendations were acted upon as follows:

1. Authorization was granted to the Committee to develop a manuscript on Specialist Identification.
2. Request to accept the offer from Blue Cross and Blue Shield of Maryland to provide in-kind services for development of necessary data was extracted and referred to the Executive Committee for its review and consideration.
3. Request for authorization for two Committee members to represent the Faculty in ongoing discussions with the Board of Physician Quality Assurance regarding Specialist Identification regulations was not favorably considered. Med Chi presently is represented at the Board of Physician Quality Assurance meetings.

Peer Review Management Committee Dr. Christopher M. Harvey, Chairman, was present to report and submit the Committee's recommendations to Council and the following was concluded:

1. Following much discussion, the request for approval of the draft proposal on a Medical Education Program was referred to the Executive Committee for further investigation.
2. Authorization was granted for the expenditure of funds up to $2,000.00 to allow formal publication of the *Peer Review Handbook*, and also that the expenditure be taken out of reserves and placed into the operating budget to accomplish the publication.
3. Establishment of a Physician Grievance Committee to review non-chargeable cases through a mechanism providing immunity to the reviewers involved. Following discussion, it was moved to assign the Physician/Patient Relations Committee the responsibility of reviewing non-chargeable cases and to invite the Legislative Committee to review the issue concerning providing immunity to the reviewers involved, rather than forming another individual committee. The motion was seconded and approved.

Liaison Committee With The Medical Assistance Program Dr. Gary L. Rosenberg, Chairman, was present to submit the "Proposed Medicaid Open Enrollment Plan" to Council for its consideration.

Dr. Rosenberg explained that the plan will: link Medical Assistance patients with Primary Care Providers (PCPs); require prior approval from PCPs for access to specialty care, admission to a hospital, and non-urgent use of emergency departments; and provide increased reimbursement to physicians that will amount to approximately a 50 percent increase across the board.

Following discussion, the Council adopted a motion to approve the plan in concept, and to continue to work with the Department of Health and Mental Hygiene in order that Med Chi may have input into the development of the regulations of the proposed case management system.

The Committee's report of January 17, 1990 was submitted for Council's approval. Having no recommendations, the report was approved as submitted.

Legislative Update Gerard Evans, from the law firm of Rifkin, Evans, Silver, and Lamone, introduced Jean Fugett, who will be joining the firm as of-counsel. Fugett, a former professional football player, will concentrate on adding to the firm's corporate law practice. Fugett has aided and will continue to aid the firm in lobbying as well. Fugett has a separate company through which he represents athletes, broadcasters, and entertainers in contract and employment matters.

Mr. Evans also spoke about the recent defeat (17-6) in the House Environmental Matters Committee of Mandated Medicare Assignment. This year marked the fourth consecutive year Mandated Assignment has been defeated. Mr. Evans noted that the testimony of three Past Presidents and the current President of Med Chi was instrumental in having the bill overthrown. He also pointed out that AARP (American Association of Retired Persons) had opposed the bill because of its imposition of a means test.

House Bill 1248, prepared by the Health Services Cost Review Commission, was also defeated by the same Committee. The primary purpose of the bill was to regulate the practice activities of radiologists, anesthesiologists, and pathologists (RAPs). Mr. Evans commended all of the physicians who testified at the hearing.

Mr. Evans commented on the physician ownership bills and referral bills circulating in the House and Senate. Med Chi is supporting SB 585, which is predominately a disclosure bill requiring physicians to inform patients of financial interests in healthcare facilities/operations. Med Chi will continue to oppose HB 779 which passed, with amendments, the House Environmental Matters Committee (16-6). This bill prohibits physicians from referring patients to healthcare services in which physicians or their immediate families have a significant financial interest.

Mr. Evans spoke about the abortion filibuster which is still ongoing as of this date. He indicated that Med Chi had testified on one bill relating to the regulation of physicians performing abortions (SB 356). He stated that he had been asked to do so by two of the committee chairmen.

On a final note, Mr. Evans addressed the triplicate prescription bill as it was heard in the Senate Economic and Environmental Affairs Committee on March 13. Opponents of the bill included representatives of Med Chi, the Maryland Pharmacist Association, Maryland Blue Cross and Blue Shield, the Maryland Dental Society, the American Cancer Society, the National Institute of Drug Abuse (NIDA), and two physicians from the New York State Medical Society where triplicate prescriptions are in operation. It is uncertain when a vote on this will be taken because the Governor is expected to issue an executive order negating the need for such a bill.

PRO Monitoring Committee Dr. John A. Singer, Chairman, presented the recommendations contained in the Committee's report of February 6, 1990, as follows:

1. Request for approval to send appropriate communication to physician chairmen of hospital utilization review committees encouraging notification to Med Chi of any "quality letter" problems.

Council Action: Approved and referred to the Executive Committee, with direction to staff that a draft letter be prepared and submitted to the Executive Committee for consideration.

2. Request that the Faculty inform Dr. R. Lane Wroth, Delmarva Foundation for Medical Care (DFMC), that his signature as the regional medical director, misleadingly reflects that he is involved in the review of the "Quality Concern Inquiries," and recommended that the DFMC clarify this issue in its letters to physicians.

Council Action: Approved and referred to the Executive Committee, with direction to staff to prepare a draft letter for the Executive Committee's consideration.

3. Recommendation that the Faculty go on record as strongly opposing physician office-based review, and that in any future discussions with DFMC regarding office-based review, the PRO Monitoring Committee should be represented.

No Action Required: Mr. Troisi informed the Council that Med Chi's position was already established as opposing physician office-based review and this information has been forwarded to DFMC, along with a copy of the AMA's report.

Committee on Hospital Medical Staffs A tabled motion from the Council meeting of January 18, 1990 was placed on the floor for discussion. The motion regarded appointments to fill Med Chi positions on the Board of Directors of the Healthcare Credentials Verification, Inc. The nominees on the tabled motion included:

Joseph S. Fastow MD
Calvert County - Calvert Memorial Hospital
Leslie R. Miles, Jr. MD
Allegany County - Sacred Heart Hospital
Marvin Schneider MD
Montgomery County - Holy Cross Hospital
Joseph I. Berman MD
Baltimore City - Columbia/FreeState
Robert J. Mahon MD
Baltimore County - St. Joseph Hospital
Paul A. Stagg MD
Dorchester County - Eastern Shore Hospital Center

Following the introduction of the tabled motion, Dr. Raymond M. Atkins, President, offered a substitute motion which included the following nominees:

Marvin Schneider MD
Rafael C. Haciski MD
Abdolhamid Ghiladi MD
Paul A. Stagg MD
Joseph S. Fastow MD
Raymond M. Atkins MD

The substitute motion was adopted, followed by a motion to reconsider, which was approved. Discussion took place and nominations were made from the floor. Dr. Breschi nominated Francisco Reyes MD to represent Western Maryland, which was seconded and approved. Dr. Fink nominated J. Richard Lilly MD to represent Prince George's County, which was also seconded and approved. Following these two nominations, the nominations were closed. The question was raised as to whether all of the nominees had been contacted and asked to serve; staff responded that they had. The Chairman then requested staff to organize ballots for a vote to decide Med Chi's representation on the Board of Directors of the Healthcare Credentials Verification, Inc. and named Dr. Vincent D. Fitzpatrick and Dr. Harold B. Bob as tellers. The following physicians were elected to the Board:

Joseph S. Fastow MD, *Calvert County*
Abdolhamid Ghiladi MD, *Baltimore County*
J. Richard Lilly MD, *Prince George's County*
Francisco Reyes MD, *Allegany County*
Marvin Schneider MD, *Montgomery County*
Paul A. Stagg MD, *Dorchester County*

Committee on Specialty Societies The Committee's

report of January 18, 1990 was submitted to Council with the following recommendations:

1. That David B. Posner MD be welcomed to the House of Delegates as a Delegate selected by the Committee on Specialty Societies.
2. That Drs. Jesse M. Hellman, William R. Leahy, Robert A. Liss and David C. Moses be welcomed to the House of Delegates as Alternate Delegates selected by the Committee on Specialty Societies.
3. That the Executive Committee *not* respond positively to the Algology letter, dated October 18, 1989. No response is recommended.

All of the aforementioned recommendations were approved as submitted.

Occupational Health Committee Dr. Michael K. Spodak, Chairman, presented the Committee's recommendation for Council's approval of a proposed change to the state code regulations regarding Workers' Compensation, Art. 101, Section 37 (a) as follows:

> IN THE EVENT OF A REQUEST FOR PROPOSED MEDICAL TREATMENT OF AN INJURED WORKER, THE INSURANCE CARRIER SHALL DECIDE ON THE PAYMENT OF TREATMENT WITHIN (3) WEEKS OR LOSE THE RIGHT TO DENY PAYMENT FOR SUCH TREATMENT. IN THE EVENT THE INSURANCE CARRIER DENIES PAYMENT FOR SUCH TREATMENT, THE COMMISSION SHALL ADJUDICATE THE DISPUTE WITHIN TWO (2) WEEKS.

The Committee also recommended that this proposal be referred to Med Chi's law firm for further action. Following discussion, the Committee's recommendations were approved, in principle, by the Council and referred to the Executive Committee for further consideration.

Long-Term Care and Geriatrics Committee Dr. George Taler, Chairman, presented the Committee's recommendation to establish a statewide consensus on the minimum standards of care in nursing home medicine as it pertains to the admission history and physical; periodic (annual) health appraisal; and the 30-day re-evaluation. A questionnaire has been developed and will be mailed to all Medical Directors or their designated alternates, and other interested physicians will be solicited (approximately 500 persons). After tabulation of the results of the initial survey, a re-edited and more focused questionnaire will be distributed for the final solicitation for elements which will comprise the consensus on minimum standards. Data entry programs and entry screens will be developed free of charge through the Department of Family Medicine, University of Maryland School of Medicine. Statistical analysis will also be made available at a discounted rate. Final editing of the report and submission for publication will be done by the Committee. Following discussion, the Council voted to refer this matter to the Executive Committee for further discussion and investigation.

Committee on Scientific Activity The Committee reported that due to insufficient numbers preregistered for the Semiannual meeting in Bermuda, the following recommendations be approved:

1. That the Bermuda trip and any attempts to meet in Ocean City or any other place be put aside and that Council and the House of Delegates meet in Osler Hall without a scientific program at this 1990 Semiannual meeting.
2. That there be a raffle to raffle off two tickets for a Bermuda vacation to comply with the requirements of the Southampton Princess Hotel contract.

Much discussion took place followed by the decision to cancel the Bermuda Semiannual meeting and to raffle off two tickets for a Bermuda vacation so as to comply with the hotel contract requirements. The Council directed staff to plan for the Semiannual business and scientific meeting in Ocean City, provided that the dates do not conflict with the dates of the Bermuda trip, scheduled for September 5-9, 1990.

Emeritus Members Council approved the following physicians for Emeritus Membership in the Faculty as requested by the component society indicated:

Baltimore City
Heinrich J. Losemann, *Baltimore*
Barnett Berman, *Baltimore*
Charles J. Blazek, *Baltimore*
George Dendrinos, *Baltimore*
D. Crosby Greene, *Baltimore*
K. A. Peter Van Berkum, *Baltimore*

Harford County
Charles J. Foley, *Havre De Grace*

Howard County
Otto C. Beyer, *Ellicott City*

Montgomery County
W. Luther Hall, *Chevy Chase*
Mario Mendoza, *Cortland, NY*
Frederick Moomau, *Olney*

Prince George's County
Albert J. Fisher, *Rockville*
Kevin G. Barry, *Davidsonville*

Affiliate Member
Ming K. Liu, *Ft. Washington*

These names will be presented to the House of Delegates for consideration at its 1990 Annual Session.

Dues Waiver Council approved the following physicians for dues waiver as requested by the indicated component society:

Baltimore City
Violet H. Jiji, *Baltimore*

Montgomery County
John H. Bouma, *Kensington*

White Papers Draft copies of "white papers" on "Peer Review Management Committee" and "Teen Pregnancy and Infant Mortality" were distributed to

Council for consideration of approval. The Council, after minor amendments and the deletion of Recommendation #3 of the "Peer Review Management Committee" paper, adopted both white papers as the Faculty's positions.

State Board of Examiners of Nursing Home Administrators Nominees Approval of nominees for consideration for two positions on the State Board of Examiners of Nursing Home Administrators - one "nursing home administrator" member and one "related profession" member for a three-year term were submitted to Council for consideration. Nominees submitted were:

Stuart J. Turkewitz MD, (Internal Medicine)
Prince George's County

Nominations from the floor were:

George Taler MD, (Family Practice)
Baltimore City

These names were approved and will be submitted to the Secretary of Health, Department of Health and Mental Hygiene, for consideration.

Treasurer's Report Dr. Jose M. Yosuico, Treasurer, submitted his recommendation to approve Nadan Lean, CPAs, as Med Chi's auditors (in accordance with Section II, Article 7 of the Faculty Bylaws). Dr. Yosuico pointed out that these are the same auditors used in the past, they have simply changed their name. After a brief discussion, the recommendation was approved.

Auxiliary Report Mr. Troisi informed the Council that Mrs. Vicki Cameron, President, was unable to attend the Council meeting due to an illness. She will present the Auxiliary report at the Annual Meeting. Dr. Reynaldo Lee-Llacer, as a member of the Auxiliary, invited the members of Council to an Auxiliary meeting taking place in his home on May 18, 1990.

■ ■ ■

Executive Committee - April 19, 1990

Peer Review Management Committee (PRMC) Dr. Ronald J. Cohen, a member of the Committee, was present to explain the Committee's recommendation for approval of the draft proposal to initiate a Medical Education Program. This recommendation was referred from Council on March 15, 1990, for further investigation by the Executive Committee. Dr. Cohen explained that the proposal consists of constructively using the information acquired through various functions; e.g., the Physician Rehabilitation Committee, Peer Review Committee, etc., to assist those doctors in obtaining the help they need to rehabilitate themselves.

Questions were raised in regard to the immunity of the preceptors providing help. Counsel stated that as long as this project is clearly stated as being part of the Peer Review process, they should be covered by the same policy as Peer Reviewers. Point was made referring to the objection of the verbiage in the introduction of the proposal raised by Council. Dr. Cohen was directed by the President to contact those members of Council and discuss this issue resulting in either changes in or elimination of the introduction. Following discussion, motion was made to approve the proposed Medical Education Program for a trial period of one year. The motion was seconded and approved.

Long-Term Care and Geriatrics Committee The Committee's proposal to establish a statewide consensus on the minimum standards of care in nursing home medicine as it pertains to admission history and physical; periodic (annual) health appraisal; and the 30-day re-evaluation, was referred from Council, March 15, 1990, to the Executive Committee for further discussion and investigation. Dr. George Taler, Chairman, provided further details. Executive Committee members voiced their support of the survey and the question was raised regarding the end results of the survey. Dr. Taler responded that there are two objectives to be accomplished through the survey: (1) publishing the results in the *MMJ* and (2) establishing a "voluntary" model of standards to be used in nursing homes throughout the state. This will be done after the standards are presented to the Council for acceptance and appropriate action. A motion was made approving allocation of reserve funds (up to $2,200) in accordance with the Council's action to approve this in concept and for further implementation by the Executive Committee. Motion was seconded and approved.

Committee on Physician Rehabilitation The Committee, in its report of February 23, 1990, requested approval of a pamphlet *To Disclose or Not to Disclose.* The pamphlet will be used as a guide for the impaired physicians and will be printed and provided to incumbents and all other interested parties. The Executive Committee approved the Committee's request, with funding to come from the Physician Rehabilitation Program.

The Committee's report of March 30, 1990, was also presented to the Executive Committee and contained the following recommendations:

- That loans to persons deceased, bankrupt, or unable to pay due to disability be written off for accounting purposes as uncollectible.
- That the Executive Committee excuse bad debt cases #4, 5, 6, 7, 8 and 9 (listed in the Committee's report) and consider these accounts as uncollectible.

Following discussion, the recommendations were

approved as submitted. The report of the financial status of the Physician Rehabilitation Program was also accepted as submitted.

Committee on AIDS The Committee's report of March 14, 1990 was presented to the Executive Committee and the following action was taken on the recommendations contained in the report.

- The request to take a position urging the DHMH to increase Medical Assistance reimbursement for physicians who treat AIDS and HIV patients was disapproved.
- Permission was not favorably considered for the Committee on AIDS to hold an open meeting during the 1990 Annual Meeting to discuss increased Medical Assistance reimbursement.

Hospital Medical Staffs Committee The Committee report of March 20, 1990 contained two recommendations which were acted upon as follows:

- *Springfield Hospital Center* - Recommendation that the Executive Committee grant permission to have the hospital medical staff discuss this matter during the HMSS portion of the annual meeting of the AMA. Following discussion, a motion was made to approve the recommendation as being in accordance with Council's original decision to support the medical staff of the hospital. The motion was seconded and approved.
- *Liaison to the Healthcare Credentials Verification, Inc.* (HCV) - Recommendation that the Executive Committee allow the Hospital Medical Staffs Committee to be the liaison/oversight committee to the HCV. Recommendation was approved as submitted.

PRO Monitoring Committee Recommendations referred from Council on March 15, 1990 for Executive Committee's consideration:

- Draft letter to be sent to physician chairmen of hospital utilization review committees requesting that Med Chi be notified of any "quality letter" problems. Motion to approve was adopted.
- Draft letter to be sent to R. Lane Wroth MD, Medical Director, Delmarva Foundation for Medical Care (DFMC), requesting DFMC to clarify the role of the regional medical director whose signature appears on the letters to physicians re "quality concern inquiries." Motion to approved was adopted.

Occupational Health Committee Recommendation referred from Council on March 15, 1990 for further consideration by the Executive Committee:

The following proposed change to the state code regulations regarding Workers' Compensation (Art. 101, Section 37(a)) be referred to Med Chi's law firm for further action:

IN THE EVENT OF A REQUEST FOR PROPOSED MEDICAL TREATMENT OF AN INJURED WORKER, THE INSURANCE CARRIER SHALL DECIDE ON THE PAYMENT OF TREATMENT WITHIN (3) WEEKS OR LOSE THE RIGHT TO DENY PAYMENT FOR SUCH TREATMENT. IN THE EVENT THE INSURANCE CARRIER DENIES PAYMENT FOR SUCH TREATMENT, THE COMMISSION SHALL ADJUDICATE THE DISPUTE WITHIN (2) WEEKS.

Motion to refer to Med Chi's legal counsel for investigation was adopted.

Library and History Committee The Committee's report of March 6, 1990 was approved with the following recommendation:

- That the printing of 3000 copies of the Krause Room brochure at the cost of $578.00 be approved.

Motion to approve was adopted.

Resolution on Drug Crisis The following resolution was adopted by the Executive Committee and will be forwarded to the Council for action during its May 9, 1990 meeting:

WHEREAS, Our nation's drug crisis is taking a tragic toll on human lives, threatening every segment of our society and our healthcare system;
WHEREAS, Illicit drugs and alcohol are addictive substances that carry a high risk of abuse, can impair mental and physical functioning, and lead to illness, injury, disability and death; and
WHEREAS, Physicians can make a difference in helping to solve these problems by working together in community partnerships and applying their special skills and knowledge; therefore, be it
RESOLVED, That the Medical and Chirurgical Faculty of Maryland pledges a high priority to developing and supporting drug and alcohol abuse education and prevention programs that facilitate the participation of all physicians, and calls upon every member to devote a portion of his or her time to public service initiatives.

Young Physicians Committee The Executive Committee discussed the funding of a representative of the Young Physicians to attend the AMA's Young Physicians annual meeting in Chicago in June, 1990. After discussion, it was decided that because one of the Alternate Delegates was not able to attend, funding for the Young Physician's attendance would not be beyond the funded budget. Therefore, approval was granted for the representative Young Physician to attend the AMA meeting in June; and coach air fare, plus normal reimbursement for AMA delegates would be provided.

Bylaws Committee At its meeting of March 26, 1990, the Bylaws Committee considered a proposal from the President-elect to consider reducing the number of Med Chi committees. The Bylaws Committee recommended the matter be referred to the Policy and Planning Committee. Following discussion, a motion was adopted to refer the matter to the Policy and Planning Committee.

Resolution for the AMA, "Doctor's Day in Congress"

The following resolution was adopted by the Executive Committee for Council's approval and forwarding to the AMA. Dr. Dobridge suggested that staff determine if other states wish to join Med Chi in the submission to the AMA.

> WHEREAS, The medical profession is becoming involved in excessive regulation which is interfering with the effective delivery of quality care;
> WHEREAS, Arbitrary rules are being established by HCFA without appropriate input by the medical profession;
> WHEREAS, The physicians of the United States of America are delivering the finest quality medical care in the world; and
> WHEREAS, The Medicare Program has developed rules and regulations which are contrary to the original intent of the law; therefore, be it
> RESOLVED, That the American Medical Association provide guidelines for meetings of this type with appropriate issues to be presented to members of both the Senate and House of Representatives;
> RESOLVED, That "Doctor's Day in Congress" receive appropriate publicity as to its intent to maintain the quality of medical care being delivered to the American public; and
> RESOLVED, That this be an annual event on a specific date each year in order that we maintain our communication as a medical profession with the individual members of Congress, while demonstrating to the public, the physicians' deep and personal commitment to the health of our citizens.

Ad Hoc Committee of Specialty Society Committee The Ad Hoc Committee presented to the Executive Committee the following recommendations relative to Laparoscopic Cholecystectomy:

(a) That the Council adopt this procedure as "standard" procedure as opposed to an "experimental" procedure;
(b) That this procedure be considered appropriate as determined by individual hospital protocol;
(c) That reimbursement for this procedure be commensurate with individual physicians' fees in conjunction with their charges for the standard cholecystectomy procedure; and
(d) That the procedure be such that an assistant surgeon is appropriate and that reimbursement be made for the assistant surgeon at the standard percentage ratio.

Following discussion, the Executive Committee adopted a motion to accept recommendations (a) and (b) for Council action and to not favorably consider (c) and (d).

Nominee for AMA Women in Medicine Advisory Panel The name of Cheryl E. Winchell MD, Montgomery County, was submitted as a nominee for the AMA Women in Medicine Advisory Panel. Question was raised concerning Dr. Winchell's eligibility. Staff was directed to verify this information. Motion was seconded and adopted to support Dr. Winchell as a nominee, given she meets the necessary qualifications.

■ ■ ■

Council May 9, 1990
383rd Meeting

Minutes The Council minutes of March 15, 1990 were approved as submitted and the Executive Committee minutes of April 19, 1990 were accepted by the Council.

Committee on Scientific Activity Dr. Jack Zimmerman, Chairman of the Committee, reported on the Committee's recommendation to hold the 1990 Semiannual Meeting at either the Sheraton (available date, Monday through Wednesday, October 15-17, 1990) or the Royal Princess (available date, Wednesday through Friday, September 12-14, 1990) in Ocean City.

During the discussion, several members of the Council expressed their displeasure with meeting dates scheduled for Monday through Wednesday, preferring a Wednesday through Friday or Thursday through Saturday time frame. Dr. Francisco Japzon, Washington County, reminded the Council that Washington County was willing to host such a meeting. After a lengthy discussion, the Council reaffirmed its position to schedule the meeting in Ocean City and decided to refer the matter back to the Committee on Scientific Activity to select the best available site to hold the 1990 Semiannual Session, and further to refer the matter to the Executive Committee for a decision.

The Council approved the University of Maryland at College Park, Maryland, as the site for the 1991 Annual Meeting, Wednesday, May 8 through Friday, May 10. During the discussion, it was pointed out that Turf Valley had informed Med Chi it will increase its fee to an additional $1,000 per day in 1991, for a total of $24,000 for our 4-day meeting. Once again, the lack of overnight sleeping accommodations was cited as the reason for the high meeting-room rental.

Emeritus Members The following physicians were approved by the Council for Emeritus Membership in the Faculty:

Baltimore City
Virginia Ling MD, *Baltimore*

Frederick County
Adel Demiray MD, *Frederick*

Wicomico County
David W. Shave MD, *Salisbury*

Worcester County
Charles W. Trader MD, *Pocomoke City*

Affiliate Member
Lionel Lee MD, *Carmichael, CA*

These names will be presented to the House of Delegates meeting today with a recommendation for approval.

Resolution on Drug Crisis Dr. Nagel, Chairman, informed the Council that the AMA had recommended that each state society adopt a resolution on

the drug crisis, and that the Executive Committee had forwarded the resolution to the Council with a recommendation for approval. A motion by Dr. Thomas Allen to amend the resolution on line 15, following the words "...and prevention" by inserting the words "and treatment" was adopted. This was followed by an adoption of the resolution as amended, as follows: (see Executive Committee Minutes, page 727.)

"Doctor's Day" Resolution Following discussion, the Council adopted the following resolution as recommended by the Executive Committee: (see Executive Committee Minutes, page 728.)

This resolution will be forwarded to the AMA for consideration by the House of Delegates at its June, 1990 meeting in Chicago.

Laparoscopic Cholecystectomy Dr. Atkins, President, reviewed the deliberations of the Ad Hoc Committee of the Committee on Specialty Societies and recommended that the Council approve the Committee's recommendation that the surgical procedure of laparoscopic cholecystectomy be considered as a "standard" procedure as opposed to an "experimental" procedure. The concern was expressed by some members of Council as to whether Med Chi or Specialty Societies should take positions on scientific issues. Dr. Nagel explained that Blue Cross/Blue Shield's Medicare office had asked for Med Chi's advice on this issue. Dr. Breschi, Chairman of the Committee on Specialty Societies, explained that the decision in this case was made by the specialty society representative of the Maryland Chapter of the American College of Surgeons who serves on the Committee and thereby was made by the appropriate specialty. The Council accepted the report on Specialty Societies as endorsed by the Executive Committee.

H.R. 4475 - Medicare Physician Regulation Relief Amendments of 1990 Dr. Marvin Schneider reported on a letter he received from Congressman J. Roy Rowland requesting support for H.R. 4475. After some discussion concerning these proposed changes in the Medicare law, it was decided to support this piece of legislation in keeping with the position of the AMA.

Dr. Nagel thanked the Council members for their support during his tenure as Chairman.

■ ■ ■

Council - May 11, 1990
384th Meeting

Introduction of New Council Members Dr. Lee-Llacer called the names of the following new members of the Council:

Esther Edery MD, *Baltimore County*
Joseph H. Hooper MD, *Baltimore City*
Allan D. Jensen MD, *Baltimore City*
Hilary T. O'Herlihy MD, *Anne Arundel County*
Arthur L. Rudo MD, *Carroll County*

Those present were welcomed with applause by the Council.

Election of Chairman and Vice Chairman The President called for nominations from the floor for the position of Chairman. Dr. Jose Yosuico nominated Dr. Marvin Schneider, the nominations were declared closed, and Dr. Schneider was elected unanimously to the position of Chairman of the Council.

Dr. Schneider presided as Chairman of the Council and called for nominations from the floor for the position of Vice Chairman. Dr. George Malouf nominated Dr. Gary L. Rosenberg, the nominations were declared closed, and Dr. Rosenberg was elected unanimously to the position of Vice Chairman of the Council.

Faculty Legal Defense Fund Dr. Schneider, Council Chairman, briefed the Council on the possibility of transfering existing funds to MMPAC for use in legislative districts in which there is a good chance to support either an incumbent legislator or other person running for a seat in the November 1990 election. Dr. Nagel moved, and it was adopted, that the Council allow the Executive Committee to respond to such requests as determined by a specific plan for each legislative district in which an opportunity to effect a positive change may be possible. ■

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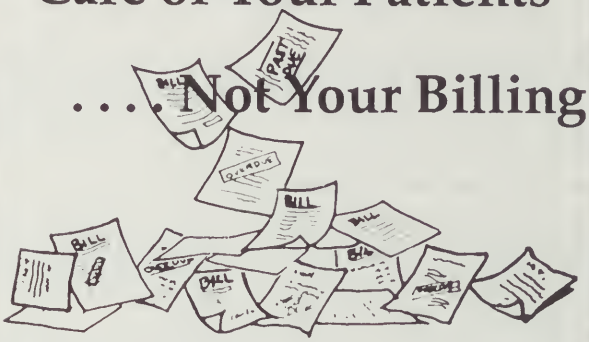
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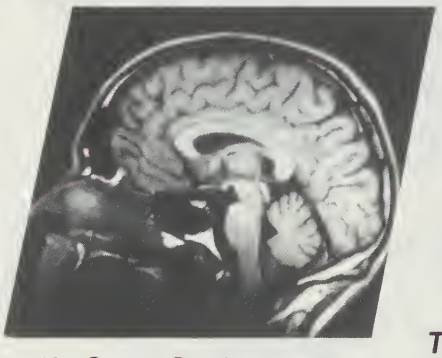
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Wednesday, May 9, 1990
Turf Valley Hotel and Country Club

The 330th meeting, first of the 192nd Annual Session of the House of Delegates of the Medical and Chirurgical Faculty, was called to order at 9:30 a.m., the President, Dr. Raymond M. Atkins, and Secretary, Dr. Harold B. Bob, being present.

The following delegates (or alternates) were registered as being in attendance; an asterisk(*) indicates an alternate delegate; (C) denotes Council member:

Allegany County
Frederick Miltenberger

Anne Arundel County
Candace I. Chandler
Astrida Plucis-Turkopuls
Jorge B. Ramirez
*Jorge M. Ramirez**

Baltimore City
Donald M. Barrick
*Ray Brodie**
Paul Burgan
Stephen M. Busky
Donald C. Chambers
Willarda V. Edwards
Ronald H. Fishbein
Frank A. Giargiana, Jr.
*Albert Folgueras**
Joseph H. Hooper
Thomas E. Hunt
Murray A. Kalish
Raymundo S. Magno
Donald W. Mintzer
*Bettylou K. Mokriski**
*Albert Nahum**
Samuel I. O'Mansky
Stephen K. Padussis
Bernard R. Shochet
Karl H. Weaver
Richard B. Williams
Joseph W. Zebley, III
Jack M. Zimmerman

Baltimore County
Marianne Benkert
Albert L. Blumberg
Herman Brecher
Benjamin V. Del Carmen
*Maurice B. Furlong**
Clarence W. Gehris
Deusdedit L. Jolbitado
John M. Krager
*Herbert J. Levickas**
Mayer C. Liebman
N. Edward Nachlas, Sr.
*Ronald Jay Orrell**
Scott M. Rifkin
Margaret L. Sherrard

Carroll County
Alva S. Baker (C)

Cecil County
Henry J. Farkas
Andrew P. Fridberg (C)

Charles County
Guillermo Sanchez

Dorchester County
Lewis M. Burdette
Paul A. Stagg (C)

Frederick County
J. Fred Baker

Harford County
Ben Oteyza

Howard County
Emidio A. Bianco
Thomas F. Herbert
Charles E. Taylor

Montgomery County
Jeffrey A. Abend
Carol L. Bender
Larry M. Einbinder
*Earlene Jordan**
Charles H. Ligon
Herman C. Maganzini
Edward S. Mehlman
Peter B. Sherer
Margaret T. Snow
Eugene K. Sussman

Prince George's County
Nelson G. Goodman
John E. Jeffery
Zorayda M. Lee-Llacer
George S. Malouf, Jr.
Myron I. Murdock
Abdul Nayeem
Robert Ruderman

Queen Anne's County
John R. Smith (C)

St. Mary's County
J. Roy Guyther (C)

Washington County
Edward W. Ditto, III
*Randy Sue Ellis**

Wicomico County
Hilda I. Houlihan

Worcester County
Federico G. Arthes (C)

Specialty Societies
Rudiger Breitenecker
Jay Gerstenblith
Lawrence C. Pakula
Allan P. Weksberg

Council
Thomas E. Allen
Albert M. Antlitz
Raymond M. Atkins
Alex Azar
James E. Bell
Harold B. Bob
Paul Bormel
Louis C. Breschi
Aurelio C. De La Paz
Benjamin V. Del Carmen
Michael R. Dobridge
Bahram Erfan
Lawrence H. Fink
Vincent D. Fitzpatrick
Abdolhamid Ghiladi
Francisco G. Japzon
Henry P. Laughlin
Reynaldo Lee-Llacer
Herbert H. Leighton
Leon R. Levitsky
Donald T. Lewers
Francis C. Mayle, Jr.
Leslie R. Miles, Jr.
J. David Nagel
Hiroshi Nakazawa
Gary L. Rosenberg
Marvin Schneider
Joseph Snyder
Marvin N. Tabb
Jeffrey F. Witte
Jose M. Yosuico

Past Presidents
DeWitt E. DeLawter
Michael R. Dobridge
Arthur T. Keefe, Jr.

Also present were members of the Faculty staff.

Invocation

Dr. Leslie R. Miles, Jr., Chairman of the Committee on Medicine and Religion, delivered the invocation.

Guests

The President introduced the following guests to the members of the House:

Dr. Lonnie R. Bristow, Member of the AMA Board of Trustees
Nancy Kintzel, AMA's Field Representative to Maryland
Dr. Constantine Amores, West Virginia State Medical Association



Staff member Lois Spears received a bouquet of roses and a brass clock plaque in recognition of her 17 years of service as Med Chi Administrative Coordinator.

Retirement

Lois Spears, Administrative Coordinator, who will retire from the Faculty on June 1, 1990, was honored by the members of the House in recognition for her many years of dedicated service to the Faculty.

President's Remarks

The President addressed the House and expressed his appreciation for the privilege of serving as President.

Minutes Approved

The minutes of the Semiannual Session of the House of Delegates, Saturday, September 14, 1989, having been distributed to all members and corrected and approved by the Executive Committee, were approved by the House of Delegates.

Necrology

The members of the House of Delegates rose in respect for deceased colleagues as the Secretary read the following necrology:

Allegany County

Samuel M. Jacobson MD	July 18, 1989

Anne Arundel County

J. Scott Decker MD	September 29, 1989
Wayne B. Tate MD	December 8, 1989
William A. Williams MD	April 9, 1989

Baltimore City

Dudley Babb MD	September 29, 1989
Helen Bowie MD	March 28, 1990
Hammond J. Dugan, III MD	April 14, 1989
Earlie Francis MD	May 12, 1989
Arthur I. Fink MD	September 24, 1989
J.R. Gibbons MD	February 4, 1990
John H. Haase MD	September 28, 1989
T. Brannon Hubbard MD	November 1, 1989
Fayne A. Kayser MD	November 22, 1989
Harry F. Klinefelter MD	February 20, 1990
Ping Y. Liang MD	June 16, 1987
Charles C. MacMinn MD	January 5, 1988
Louis R. Maser MD	December 14, 1989
Mieczyslaw Mirowski MD	March 26, 1990
Rafael B. Rodriguez MD	May 1, 1989
Israel Rosen MD	November 2, 1988
Ernest Scher MD	November 22, 1989
Sidney Scherlis MD	January 10, 1990
Calbert T. Seebert MD	March 15, 1989
Adam Swiss MD	June 7, 1989
Richard W. Te Linda MD	November 16, 1989
Joseph E. Whitley MD	April 24, 1989
Israel S. Zinberg MD	March 22, 1990

Baltimore County

Wolf N. Adler MD	January 24, 1990
Lester T. Chance MD	June 16, 1989
Myung H. Chung MD	February 15, 1990
Raymond M. Cunningham MD	May 6, 1989
D. M. Dixon MD	May 28, 1989
J. D. Drinkard MD	April 13, 1989
Frank V. Manieri MD	November 3, 1989
Joseph Miceli MD	October 14, 1989
John D. Rosin MD	January 3, 1990
Roy O. Scholz MD	April 15, 1989
Myra Zinke MD	May 22, 1989

Caroline County

Harold B. Plummer MD	October 27, 1989

Charles County

Vernon B. Dettor MD	May 1, 1989
Tirso E. Joson MD	March 30, 1990

Frederick County

Norvell Belt MD	No date available
William R. Cadle MD	No date available
Gilcin F. Meadors, Jr. MD	No date available

Harford County

Robert M. Ollodart MD	July 20, 1989
Mauricio I. Zeplo MD	October 16, 1989

Howard County

W. Bradley King, Jr. MD	September 4, 1989

Montgomery County

John N. Andrews MD	January 1, 1980
Lloyd E. Church MD	January 8, 1990
George E. Demetrakopoulos MD	December 23, 1989
William H. Ferguson MD	November 14, 1989
G. B. Hunter MD	June 24, 1985
Robert G. Kindred MD	April 27, 1989
Jonas C. Kolker MD	October 18, 1989

Albert J. Miele MD	December 1, 1988
Howard T. Morse MD	February 15, 1990
Peter Santucci MD	November 27, 1989
John D. Schultz MD	November 24, 1989
Cassie L. Wesselius MD	April 13, 1989
Prince George's County	
Leopold Diamond MD	August 28, 1989
Edward Gartman MD	September 24, 1989
Blanca A. Gimenez MD	July 7, 1989
George C. Hajjar MD	December 8, 1989
Alfred R. Lapin MD	August 28, 1989
Talbot County	
Alfredo G. Mendoza MD	May 8, 1989
Washington County	
Philip J. Hirshman MD	March 8, 1990
Edwin G. Riley MD	July 16, 1989
Wicomico County	
Walter D. DeVault, Jr. MD	July 10, 1989

Memorial Resolution

On motions of the Secretary, the following resolutions were adopted unanimously by the House, each on a separate division vote:

W. BRADLEY KING, JR. MD
1925 - 1989

Whereas, W. Bradley King, Jr. MD, was born in Juneau, Alaska, in 1925, and received his medical degree from Stanford, where he later won the distinguished Schilling Fellowship awarded by the school's Department of Pathology. He served his residency in pathology at the Harbor/UCLA Medical Center in Los Angeles and at Massachusetts General Hospital;

Whereas, He was co-founder of Maryland Medical Laboratory, Inc., and served as Howard County General's Laboratory Director and Pathology Chief for 11 years until his death;

Whereas, He thereafter moved to Maryland in 1959, and became an Instructor at the Johns Hopkins University School of Hygiene and Public Health and an Assistant Professor of Forensic Pathology at the University of Maryland School of Medicine;

Whereas, Dr. King worked as an Assistant State Medical Examiner from 1959 until 1961, when he was appointed Laboratory Director and Pathology Chief at Maryland General Hospital in Baltimore, where he worked for 17 years, and also was the Assistant Medical Director of the Baltimore Chapter of the American Red Cross;

Whereas, While in Boston, he was awarded a two-year research fellowship by the American Cancer Society to continue his work in clinical pathology at Massachusetts General;

Whereas, he was board-certified in anatomic and clinical pathology as well as forensic pathology. Dr. King was a fellow of the College of American Pathologists, the American Society of Clinical Pathologists, the International Academy of Pathology and the American Academy of Forensic Sciences;

Whereas, Dr. King served as President of the Howard County Medical Society and was also active for many years in other medical associations;

Whereas, He was an inspiration to all who knew him, and will be remembered for his irrepressible wit and indomitable spirit; and

Whereas, His death will leave a void in the lives of his family, friends, and colleagues; therefore, be it

Resolved, That this House of Delegates of the Medical and Chirurgical Faculty of Maryland adopts this resolution with an expression of profound sorrow on the death of Dr. W. Bradley King, Jr.; and be it further

Resolved, That this resolution be spread upon the minutes of this meeting and a copy be sent to his wife, Mrs. Marie King, in recognition of the high esteem in which Dr. King was held and will be remembered.

TIRSO E. JOSON, JR. MD
1926 - 1990

Whereas, Dr. Tirso E. Joson, Jr., died on March 30, 1990;

Whereas, Dr. Joson was an active member of the Charles County Medical Society and served as Secretary-Treasurer in 1981, as President in 1972, and performed duties dedicating his time and effort to improving and maintaining the quality of medical care in Charles County;

Whereas, Dr. Joson was a representative of the Charles County Medical Society to the House of Delegates of the Medical and Chirurgical Faculty of Maryland in the year 1980, and during that period of time served this society most diligently;

Whereas, He specialized in Obstetrics and Gynecology and during his years of practice served as Chairman of the Obstetrics and Gynecology Department at Physicians Memorial Hospital from 1984 to 1986, and was President of the Medical Staff from 1988 to 1989, during which time he earned the respect of his subordinates and peers;

Whereas, Dr. Joson was a practicing physician in the Charles County community beginning in 1969, and during all those years he characterized himself as a hard working, dedicated and compassionate physician who was always available to his patients and cared for them in a conscientious and dedicated manner; and

Whereas, Dr. Joson was named "Physician of the Year" on March 30, 1989, at Physicians Memorial Hospital in recognition of his individual achievements as a member of the hospital's medical staff; therefore, be it

Resolved, That the House of Delegates of the Medical and Chirurgical Faculty of Maryland adopts this resolution as an expression of its deep sorrow upon the death of Dr. Tirso E. Joson, Jr.; and be it further

Resolved, That a copy of this resolution be sent to his family as a token of the esteem in which he was held by all.

Fifty-Y ear Members

Presentation of Fifty-Year certificates and pins by the President to the following members took place, with the awards being mailed to those unable to attend:

Baltimore County
Harold H. Burns MD

Baltimore City
Ruth Finkelstein MD
William R. Lumpkin MD
Richard N. Tillman MD
Irvin P. Klemkowski MD
John M. Scott MD
Kennard L. Yaffe MD

Dorchester County
Lawrence Maryanov MD



President Raymond M. Atkins, MD congratulates a 50-year member for his years of dedicated service to the Faculty.

Garrett County
Andrew E. Mance

Frederick County
Bernard O. Thomas, Jr. MD

Montgomery County
George D. Selby MD

AMA-ERF Checks

Checks in the amount of $13,726 in unrestricted funds and $3,676 in restricted funds were presented to Dr. H. Franklin Herlong, Associate Dean for Student Affairs of The Johns Hopkins University, School of Medicine. $3,173 in unrestricted funds and $885 in restricted funds were presented to LTC (Ret.) Peter Stavish, Special Assistant for University Affairs and Director of Admissions of the Uniformed Services University of the Health Sciences. And $23,066 in unrestricted funds and $6,053 in restricted funds were presented to Dr. John M. Dennis, Dean of the University of Maryland, School of Medicine. Mrs. Elizabeth Linhardt, Chairperson of the AMA-ERF in Maryland, and Mrs. Victoria Cameron, President of the Med-Chi Auxiliary, participated in the presentation.

A.H. Robins Award

The President presented the A. H. Robins Award for Community Service to Dr. Wayne C. Spiggle, for his outstanding contributions to the community, the state and the country in the establishment of "Allegany Health Right," a program that provides free or low cost medical care to those residents who "fall through the cracks" of the current system.

Certificates of Appreciation

The President presented Certificates of Appreciation to the following physicians for their outstanding service and dedication as chairmen of their respective committees:

Dr. Victor Hrehorovich, Chairman
Committee on Hospital Medical Staffs
Dr. Louis C. Breschi, Chairman
Committee on Professional Ethics
Dr. Herman C. Maganzini, Chairman
Committee on Public Health

Photo Contest

The President announced the winners of the Photo Contest (Color Category):

lst and 2nd Place: Dr. A. Harry Oleynick
3rd Place - Dr. David A. Paul

Student Award

The President, Dr. Atkins, announced the winner of the Award for Excellence in Organized Medicine, Jay W. Floyd, a senior from the University of Maryland Medical School. This award was established to recognize the contributions Maryland medical students make to organized medicine.

Emeritus Members

On motion of Dr. J. David Nagel, Council Chairman, the following members, having received the recommendation of their component societies, were elected to Emeritus Membership:

Anne Arundel County
Richard K. Greenbank, MD Annapolis
Ernesto A. Tolentino MD, Glen Burnie

Baltimore City
Morton D. Berkow MD, Baltimore
Barnett Berman MD, Baltimore
Charles J. Blazek MD, Baltimore
George J. Dendrinos MD, Baltimore
D. Crosby Greene MD, Baltimore
John T. Johnson MD, Baltimore
Virginia Ling MD, Baltimore
Heinrich J. Losemann MD, Baltimore
Talmadge H. Pinkney MD, Baltimore
Harry J. Roebber MD, Baltimore
K. A. Peter Van Berkum MD, Baltimore

Baltimore County
William P. Houpt MD, Bel Air

Carroll County
Abdulkadir S. Okutman MD, Sykesville

Cecil County
Roy W. Chesnut MD, Baltimore
Luis M. Cuza MD, North East
John A. Fischer MD, Elkton
Zin U. Park MD, St. Augustine, FL
Christobal Vela-Flores MD, Elkton

Frederick County
Adel Demiray MD, Frederick

Harford County
Charles J. Foley MD, Havre De Grace

Howard County
Otto C. Beyer MD, Ellicott City

Montgomery County
Peter P. Andrews MD, Bethesda
Francis J. Crilley MD, Bethesda
Kenneth Cruze MD, Silver Spring
Wilson Luther Hall MD, Chevy Chase
Michael M. Healy MD, Bethesda
Arthur J. Levens MD, Olney
Mario Mendoza MD, Cortland, NY
Marvin I. Mones MD, Silver Spring
Frederick Moomau MD, Olney
Richard C. Myers MD, Bethesda
Steven Oristian MD, Auburn, NY
Roland H. White MD, Laurel

Prince George's County
Kevin G. Barry MD, Davidsonville
Albert J. Fisher MD, Rockville

Wicomico County
Harold N. Eccleston MD, Parsonburg
David W. Shave MD, Salisbury
Aubrey C. Smoot MD, Salisbury

Worcester County
Alfredo B. Fernandez MD, Berlin
Charles W. Trader MD, Pocomoke City

Affiliate Members
John C. Harvey MD, Bethesda
Lionel B. Lee MD, Carmichael, CA
Ming K. Liu MD, Ft. Washington

Treasurer's Report

Dr. Jose M. Yosuico, Treasurer, made a brief report on the 1990 budget as adopted by Council and distributed to all members prior to the meeting.

Bylaws Committee Report

The President advised the members of the House that the "consent calendar" procedure would be used for the report of the Bylaws Committee. Following a review of the issues of the report by Dr. Karl H. Weaver, Chairman of the Bylaws Committee, Items 1 and 3 of the report were extracted for discussion.

Dr. Weaver, on behalf of the Bylaws Committee, moved adoption of bylaw amendments, Items 2, 4, 5 and 6 of the report, which were adopted unanimously, as follows:



President Raymond M. Atkins, MD and Maryland's AMA-ERF Chairperson Elizabeth Lindhardt present checks to Deans of Maryland's Medical Schools.

Item 2. Proposed Bylaw Amendment to Maryland Delegation to the AMA, Article XI, Section 6 - ADOPTED

Rationale: To establish an appropriate procedure for processing of resolutions to be forwarded to the AMA House of Delegates.

Amend Article XI, Section 6, as follows: CAPS indicate change

Section 6. (a) At least two of the Delegates and Alternates to the American Medical Association shall be nominated and elected in the same manner and at the same time as that provided for the elective officers. Their terms shall begin on January 1 of the year following their election and they shall serve for a term of three years, or until their successors are elected.

(b) RESOLUTIONS TO BE INTRODUCED INTO THE AMA HOUSE OF DELEGATES SHALL BE SUBMITTED TO THE FACULTY'S DELEGATION TO THE AMA FOR REVIEW AND SUBMISSION TO THE COUNCIL FOR REVIEW AND APPROVAL PRIOR TO THE SUBMISSION OF SUCH RESOLUTIONS TO THE AMA. IN THE EVENT THE TIMING OF COUNCIL MEETINGS PRECLUDES THIS PROCESSING, SUCH RESOLUTIONS MAY BE FORWARDED TO THE EXECUTIVE COMMITTEE FOR REVIEW AND APPROVAL PRIOR TO THE SUBMISSION TO THE AMA. IN THE EVENT THE TIMING PRECLUDES THE EXECUTIVE COMMITTEE MEETINGS, THEN THE ACTION SHALL BE TAKEN BY THE AMA DELEGATION AS TO THE SUBMISSION OF SUCH RESOLUTIONS TO THE AMA.

Item 4. Proposed Bylaw Amendment to the Peer Review Committee, Article XI, Section 23 - ADOPTED

Rationale: To define more clearly the Committee's responsibilities as they relate to the Board of Physician Quality Assurance and to conform to the law as written.

Amend Article XI, Committees, Section 23, Peer Review Committee, as follows: [ ] indicates deletion; CAPS indicate change

Section 23. A Peer Review Committee shall consist of not less than [nine] FIFTEEN members WITH AN EFFORT MADE TO REPRESENT MAJOR SPECIALTIES. One-third of the members shall be appointed annually for three-year terms by the President. THE CHAIRMAN SHALL BE DESIGNATED ANNUALLY BY THE PRESIDENT. It shall be the duty of this committee to review the practices of Maryland physicians AS REFERRED BY THE PEER REVIEW MANAGEMENT COMMITTEE UPON REQUEST OF THE STATE OF MARYLAND BOARD OF PHYSICIAN QUALITY ASSURANCE. THE COMMITTEE SHALL REVIEW THE PRACTICES OF MARYLAND PHYSICIANS [practicing] in ALL [institutions, offices, and other] locations where medical care is rendered for the purpose of evaluating the PROFESSIONAL, PHYSICAL, AND MENTAL COMPETENCY OF PHYSICIANS [appropriateness of the care rendered as well as the competency and efficiency of the physicians rendering it]. This review shall include, but not be limited to, the quality of care rendered [medications ordered, services other than physical examination provided, and quality of the physical examination given.] AND SHALL BE CONDUCTED WITHIN THE GUIDELINES SET FORTH IN THE PEER REVIEW HANDBOOK. The committee shall also be charged with the review of the quality of care rendered by those persons under the supervision of physicians, WHERE APPROPRIATE. [*Delete to end of section.*]

Item 5. Proposed Bylaw Amendment to Establish Attendance Requirements for Members of Council - ADOPTED

Rationale: To improve communications between the Council and the component societies.

Amend Article VII, Council, by adding a new Section 7, automatically redesignating subsequent sections: CAPS indicate change

SECTION 7. COUNCILORS REPRESENTING THEIR COMPONENT SOCIETIES SHALL BE REQUIRED TO ATTEND AT LEAST A MAJORITY OF THE MEETINGS OF THE COUNCIL EACH YEAR OF TENURE. IN THE EVENT A COUNCILOR HAS BEEN UNABLE TO MEET THE ATTENDANCE REQUIREMENTS AS PRESENTED IN THIS SECTION OF THE BYLAWS, THE RESPECTIVE COMPONENT SOCIETY SHALL BE ADVISED OF THE RECORD OF THEIR REPRESENTATIVE'S ATTENDANCE AND SHALL CONSIDER POSSIBLE REPLACEMENT OF THEIR COUNCILOR."

Item 6. Proposed Bylaw Amendment regarding Membership on Peer Review Management Committee - ADOPTED

Rationale: To include the Peer Review Management Committee in the appropriate sections of the bylaws as one of the committees that restricts certain categories of membership from service on the Committee.

Amend Article II, Membership, Section 2(c), as follows: CAPS indicate change

(c) Associate members shall have the right to attend and participate in General Meetings; subscribe to the *Maryland Medical Journal*; have the privileges of the building, the reading room, the use of the books and to hold such meetings in the building as meet with the approval of the Executive Committee. They shall not have the right to vote or hold office in their component societies, but may be appointed to serve on committees of the Faculty, except the Committee on Physician/Patient Relations, the Committee on Physician Rehabilitation, the Committee on Peer Review, THE PEER REVIEW MANAGEMENT COMMITTEE, and the Committee on Drugs. Those associate members who are Doctors of Medicine engaged in the clinical practice of medicine shall have the right of physician's defense.

Amend Article II, Membership, Section 4, as follows: CAPS indicate change

Section 4. Student members shall consist of those full-time students who are enrolled in an accredited medical school, and who are either domiciled or attending a medical school in Maryland, who apply for such membership on a form provided by the Executive Director. They shall have the rights accruing to associate members except that of physician's defense, provided that any Student Member of the Faculty who is a member of a component society exclusively composed of such Student Members may exercise full membership rights and duties in such component societies. Student Members may be appointed to serve on, but not as Chairman of, committees of the Faculty except the Committee on Physician/Patient Relations, the Committee on Physician Rehabilitation, the Committee on Peer Review, THE COMMITTEE ON PEER REVIEW MANAGEMENT, and the Committee on Drugs.

Amend Article XI, Committees, Section 39, as follows: CAPS indicate change

Section 39. The President, President-elect and Secretary shall be ex-officio members of all committees except the Nominating Committee and the Committee on Physician/Patient Relations, the Commmittee on Physician Rehabilitation, the Committee on Peer Review, THE COMMITTEE ON PEER REVIEW MANAGEMENT, and the Committee on Drugs.

Dr. Weaver, on behalf of the Bylaws Committee, recommended adoption of the following bylaw amendment, Item 1 of the report, which, after debate and amendment, was adopted as amended, by the required 2/3 vote:

Item 1. Proposed Bylaw Amendment to the Board of Physician Board of Quality Assurance, Article IX, Section 1 - ADOPTED AS AMENDED

Rationale: To clarify the language in the bylaws to indicate that Med Chi is responsible for the seating of 10 of the 15 members of the Board.

Amend Article IX, Section 1, as follows: [ ] indicates deletion; CAPS indicate change

Section 1. There is a Board of Physician Quality Assurance composed of fifteen active members OF WHICH TEN OF ITS MEMBERS SHALL BE PHYSICIANS RECOMMENDED BY THE FACULTY. [and] It has such powers, duties, officers and meetings as are provided from time to time by law.

Dr. Weaver, on behalf of the Bylaws Committee, recommended adoption of the following bylaw amendment, Item 3 of the report, which, after debate, was adopted by the required 2/3 vote:

Item 3. Proposed Bylaw Amendment to Committee on Drugs, Article XI, Section 7 - ADOPTED

Rationale: To include as a function of the committee the education of both physicians and patients in the area of drug-related problems.

Amend Article XI, Section 7, as follows: CAPS indicate change

Section 7. A Committee on Drugs of at least five members shall be responsible for evaluating the appropriateness of prescribing controlled dangerous drugs and shall work closely with appropriate [state and federal] GOVERNMENTAL authorities in controlling the abuse of controlled dangerous substances by physicians and be alert to legislative and regulatory proposals regarding prescription drugs, standing ready to provide expertise in this area to such agencies or groups as request it; MAY PROVIDE EDUCATIONAL MATERIAL IN THE FORM OF LECTURES AND OTHER DIDACTIC INFORMATION ON THE CURRENT KNOWLEDGE CONCERNING PRESCRIBING CONTROLLED SUBSTANCES; MAY PROVIDE SUPPORT AND ADVICE TO THE DEPARTMENT OF HEALTH AND MENTAL HYGIENE TO URGE THAT THERE ARE ADEQUATE FACILITIES AVAILABLE 24 HOURS A DAY TO TREAT ALL OF THE VICTIMS, BOTH PROFESSIONAL AND OTHERWISE, OF DRUG ABUSE AND ITS COMPLICATIONS. Its chairman and members shall be appointed ANNUALLY by the President.

Nominating Committee Report

Dr. Michael R. Dobridge, Immediate Past President and Chairman of the Nominating Committee, on behalf of the Nominating Committee, presented the following slate of officers to the House of Delegates:

President-elect (1990-1991)
J. David Nagel, Lutherville, Baltimore County
(President, 1991-92)

First Vice-President (1991)
Marvin Schneider, Wheaton, Montgomery County

Second Vice-President (1991)
Bahram Erfan, Riverdale, Prince George's County

Third Vice-President (1991)
Alex Azar, Salisbury, Wicomico County

Secretary (1991)
Harold B. Bob, Baltimore, Baltimore County

Treasurer (1991)
Lawrence H. Fink, Laurel, Montgomery County

Committee on Scientific Activity (1991-1997)
Walker L. Robinson, Baltimore, Baltimore City

Finney Fund Committee (1991-1996)
John W. Buckley, Towson, Baltimore County

Delegates to the AMA
Donald T. Lewers, Easton, Talbot County
(January 1, 1991-December 31, 1993)
George S. Malouf, Hyattsville, Prince George's County
(January 1, 1991-December 31, 1993)

Alternate Delegates to the AMA
Henry N. Wagner, Jr., Baltimore, Baltimore City
(January 1, 1991-December 31, 1993)
J. David Nagel, Lutherville, Baltimore County
(January 1, 1991-December 31, 1993)
W. David Sullivan, Baltimore City (Student)
(1990 Annual Meeting-December 31, 1992)



President Raymond M. Atkins, MD delivers his President's Report to Med Chi's House of Delegates.

Board of Physician Quality Assurance
(4-year term, 6/30/90-6/30/94)(Faculty Bylaws require that a minimum of twice the number of nominees shall be submitted as there are seats to be filled.)

R. Marshall Ackerman (ORS)
Rockville, Montgomery County
Victor R. Felipa (IM)
Cumberland, Allegany County
Kevin N. Hennessey (N)
Greenbelt, Prince George's County
John T. Lynn (ORS)
Upper Marlboro, Prince George's County
Francis C. Mayle (N)
Bethesda, Montgomery County
Cheryl E. Winchell (FP)
Gaithersburg, Montgomery County

Dr. Atkins announced that Dr. Hennessey had withdrawn his nomination to the Board of Physician Quality Assurance, thereby leaving a vacancy to be filled.

The floor was opened to further nominations for these offices.

Dr. John Strahan, Baltimore County, was nominated from the floor as a nominee for a position on the Board of Physician Quality Assurance, following which the nominations were declared closed by general consent. Dr. Marvin Schneider moved, and the motion was adopted, that the entire slate for the Board of Physician Quality Assurance be forwarded to the Governor for consideration.

The President announced that the election for these positions would take place as the first item of business on Friday, May 11, 1990, at 2:00 p.m.

The meeting was adjourned at 11:04 a.m.

HAROLD B. BOB MD, Secretary

Commitment and Service Since 1975

The *Med Chi Agency* was established by the Medical and Chirurgical Faculty in 1975 and now has over 5,000 physicians and employees as clients.

As a comprehensive insurance agency, we are able to offer a wide range of insurance and financial products. You will benefit from the many coverages available for both your professional and personal needs. You will also benefit indirectly, because Med Chi owns the *Med Chi Agency* and the earnings from its operations.

For complete information about any insurance product or service, just give us a call. We can provide the answers you seek and the solutions you need.



THE MED CHI AGENCY
1204 Maryland Avenue
Baltimore, MD 21201
301-539-6642 Toll Free-1-800-543-1262
FAX-1-301-752-5421

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Medical and Chirurgical Faculty of Maryland
Second Meeting, 192nd Annual Session, House of Delegates (331st Meeting)
Friday, May 11, 1990
Turf Valley Hotel and Country Club

The 331st meeting, second of the 192nd Annual Session of the House of Delegates of the Medical and Chirurgical Faculty of Maryland was called to order at 2:05 p.m., the President, Dr. Raymond M. Atkins, and the Secretary, Dr. Harold B. Bob, being present.

The following delegates (or alternates) were registered as being in attendance; an asterisk (*) indicates an alternate delegate; (C) denotes Council Member:

Allegany County
*Augusto F. Figueroa, Jr.**
Frederick Miltenberger

Anne Arundel County
Candace I. Chandler

Baltimore City
Paul Burgan
Donald C. Chambers
*Augusto R. De Leon**
Ronald H. Fishbein
Susan R. Guarnieri (C)
Gerald A. Hofkin
*Gerard M. Lowder**
Raymundo S. Magno
Donald W. Mintzer
*Albert Nahum**
Samuel I. O'Mansky
Bernard R. Shochet
Karl H. Weaver

Baltimore County
Sheldon B. Bearman
Marianne Benkert
Herman Brecher
John W. Buckley
David M. Cook
John C. Gordon
Deusdedit Jolbitado
*Herbert J. Levickas**
N. Edward Nachlas, Sr.
Allan G. Scott
H. Russell Wright, Jr.

Carroll County
Arthur L. Rudo

Cecil County
Henry J. Farkas

Dorchester County
Paul A. Stagg (C)

Garrett County
Herbert H. Leighton

Harford County
Rose Mary H. Bonsack
Ben Oteyza

Howard County
Melvin S. Rapelyea

Montgomery County
Carol L. Bender
Charles H. Ligon
Edward S. Mehlman
Peter B. Sherer
Margaret T. Snow

Prince George's County
Nelson G. Goodman
Zorayda M. Lee-Llacer

Washington County
Edward W. Ditto, III
Albert J. Strauss, Jr.

Wicomico County
Alex Azar (C)

Specialty Societies
Jay Gerstenblith
Allan P. Weksberg

Council
Albert M. Antlitz
Raymond M. Atkins
James E. Bell
Harold B. Bob
Ira N. Brecher
Louis C. Breschi
Benjamin V. Del Carmen
Bahram Erfan
Lawrence H. Fink
Vincent D. Fitzpatrick
Reynaldo Lee-Llacer
J. Richard Lilly
Jack C. Meshel
J. David Nagel
Hiroshi Nakazawa
Gary L. Rosenberg
Marvin Schneider
Marvin Tabb
Israel H. Weiner
Jose M. Yosuico

Past Presidents
Michael R. Dobridge
Leon E. Kassel

Also present were members of the Faculty staff.

Guests

The President introduced the following guests who were in attendance:

Constantine Amores MD, representing the West Virginia State Medical Association
William H. Barney MD, President, Medical Society of Virginia
J. Joseph Danyo MD, President, and Gordon K. MacLeod MD, President Elect, Pennsylvania Medical Society
Ali Hameli MD, President, Medical Society of Delaware
Palma E. Formica MD, Chairman of the AMA Council on Long-Range Planning and Development

Auxiliary Report

Mrs. Victoria Cameron, Auxiliary President, made a report to the House of Delegates which will be published in the annual reports in the August 1990 issue of the *Maryland Medical Journal.*

Election of Officers

There being only one candidate for each office to be filled, by unanimous consent, the ballot was dispensed with and the following were elected by voice vote:

President-elect (1990-91)
J. David Nagel, Lutherville, Baltimore County
(President, 1991-92)

First Vice-President (1991)
Marvin Schneider, Wheaton, Montgomery County

Second Vice-President (1991)
Bahram Erfan, Riverdale, Prince George's County

Third Vice-President (1991)
Alex Azar, Salisbury, Wicomico County

Secretary (1991)
Harold B. Bob, Baltimore, Baltimore County

Treasurer (1991)
Lawrence H. Fink, Laurel, Montgomery County

Committee on Scientific Activity (1991-1997)
Walker L. Robinson, Baltimore, Baltimore City

Finney Fund Committee (1991-1996)
John W. Buckley, Towson, Baltimore County

Delegates to the AMA
Donald T. Lewers, Easton, Talbot County
(January 1, 1991-December 31, 1993)
George S. Malouf, Hyattsville, Prince George's County
(January 1, 1991-December 31, 1993)

Alternate Delegates to the AMA
Henry N. Wagner, Jr. Baltimore, Baltimore City
(January 1, 1991-December 31, 1993)
J. David Nagel, Lutherville, Baltimore County
(January 1, 1991-December 31, 1993)
W. David Sullivan, Baltimore City (Student)
(1990 Annual Meeting-December 31, 1992)

Board of Physician Quality Assurance
(Nominees to be submitted)
R. Marshall Ackerman (ORS)
Rockville, Montgomery County
Victor R. Felipa (IM)
Cumberland, Allegany County
John T. Lynn (ORS)
Upper Marlboro, Prince George's County
Francis C. Mayle (N)
Bethesda, Montgomery County
John F. Strahan (D)
Towson, Baltimore County
Cheryl E. Winchell (FP)
Gaithersburg, Montgomery County

Legislative Report

Gerard Evans, Esq., made a report on legislative activities which will be published in the August 1990, issue of the *Maryland Medical Journal.*

Slide show

The President, Dr. Atkins, presented a slide show stressing the importance of improvement in communications between the physician and patient.

Recognition

The President presented Certificates of Appreciation to the following counties in recognition of the highest percentage of increased membership:

Howard County
Prince George's County
Worcester County

MMPAC Report

Dr. Harold B. Bob, Chairman of the Maryland Medical Political Action Committee, made a report to the House of Delegates. This report will be published in the September 1990 issue of the *Maryland Medical Journal.*



President Raymond M. Atkins, MD reviews his notes during the 331st Meeting of the House of Delegates.

BPQA Report

Dr. Israel Weiner, Chairman of the Board of Physician Quality Assurance, reported on the activities of the Board of Physician Quality Assurance.

DFMC

Dr. Robert Ruderman, Prince George's County, reported on the problems encountered by physicians being reviewed by Delmarva Foundation for Medical Care, Inc. and urged Med Chi to explore the possibility of becoming the qualifier of those performing the reviews for Delmarva. Dr. Atkins stated that the issue would be taken up by the appropriate Faculty committee.

Oath of Office - Exchange of Gavel

Dr. Atkins, President, briefly addressed the House; administered the Oath of Office to Dr. Reynaldo Lee-Llacer, the incoming President; and presented Dr. Lee-Llacer with the President's Medallion, which was followed by the exchange of the gavel. Dr. Lee-Llacer presented Dr. Atkins with the Past President's Medallion and proceeded to address the House.

By unanimous consent, the President declared the meeting adjourned sine die at 3:30 p.m.

HAROLD B. BOB MD, Secretary

Important to New Physicians!

Did you buy your Malpractice Coverage from Medical Mutual Liability?

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Did anyone bother to inform you that you could have saved up to 50% on your next renewal if you had simply changed your effective date of coverage to July 3rd?

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If you weren't informed of this potential savings when you bought your coverage, maybe you should be dealing with us.

For additional information on this and other cost-savings tips, just complete the form below and send it to us or call our toll-free number for immediate attention.

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AIDS

Mr. President and Members of the House of Delegates:

The Committee on AIDS had a very productive year and was responsible for the enactment of several new Med Chi policies and programs dealing with AIDS and HIV infection, and encouraged new state laws on the disease.

In September 1989, Med Chi's Council accepted the Committee's White Paper which established a formal Faculty position on the following topics:

- Education, prevention and treatment programs
- Discrimination
- Protection of healthcare workers
- The Omnibus Bill
- Confidentiality law
- Physicians who are HIV positive
- Mandatory continuing medical education on AIDS for re-licensure of physicians
- Refusal of treatment
- Living long and living well
- Mandatory reporting
- The Committee on AIDS

This paper allowed Med Chi to take a proactive stance on several AIDS issues in the legislature and led to the establishment of new programs.

As a result of the new Faculty position on education, prevention and treatment, the Committee initiated a program, in cooperation with the Governor's Advisory Council on AIDS and the Department of Health and Mental Hygiene (DHMH), to educate students, parents, and school employees about HIV and its transmission. Letters were sent to all public and private schools in Maryland inviting them to participate. As part of the program, volunteer physicians from Med Chi and DHMH will visit schools to teach and answer questions from children and adults about AIDS and HIV. Thus far, the response from school systems has been outstanding. Several schools have requested speakers, and the Baltimore City School Board has expressed an interest in formulating a program for the 1990-1991 school year.

In January 1990, the Committee began taking measures to educate and inform physicians about the growing AIDS epidemic. The Committee is interested in establishing a comprehensive educational program for all Maryland physicians and is currently working in conjunction with the Center for Health Education, Inc., and representatives from the University of Maryland and Johns Hopkins University Hospitals to develop such a program. Committee members are also working closely with DHMH to ascertain the results of a 1989 Maryland physician survey on AIDS and HIV.

Med Chi's January *Executive Director's Newsletter* featured an announcement that encouraged physicians to learn more about participating in treatment programs for AIDS and HIV patients. It also reminded physicians that Med Chi and AMA policies state that no physician has the moral or legal right to refuse treatment of a patient within the physician's current realm of competence, solely because the individual is seropositive.

The Committee's most pronounced educational efforts appeared in the February 1990 issue of the *Maryland Medical Journal* which explored many traditional and some innovative treatment methods for AIDS and HIV-infected patients. The issue featured articles by noted experts on Pediatric AIDS, the Management of Asymptomatic HIV, and Antiviral Therapy. The Committee hopes to establish a monthly AIDS column in *MMJ* within the coming year.

In an attempt to provide further education to physicians about the disease, the Committee on AIDS was represented during the President's Eastern Regional Conference in Cambridge, Maryland in March.

At the Med Chi Annual Meeting, the Committee sponsored a session on "AIDS in the 1990s - Living Long and Living Well" which provided detailed information on the prevention of infection and the rational use of AZT and other drugs, and attempted to re-educate physicians to the critical role of co-factors in illness. The Committee also made available the Center for Disease Control's *Mortality and Morbidity Weekly Report* on AIDS from January 26, 1990. In April, Committee members discussed the possibility of requesting that next year's Annual Meeting include a plenary speaker on AIDS.

In addition to its educational efforts, the AIDS Committee took an active role in reviewing legislation and developing Faculty positions with the Legislative Committee.

Although many pieces of AIDS legislation were introduced, only House Bill 905 passed. This bill established the Maryland AIDS Insurance Assistance Program, a two-year pilot program that will provide for continuation of health insurance benefits for HIV and AIDS patients. The program will be limited to 150 persons who meet the eligibility requirements outlined in the bill. The new law also requires DHMH to submit an annual report to the Governor and the General Assembly regarding the cost effectiveness of the program.

The Committee met with representatives from the DHMH Aids Administration to discuss the problems of infectious medical waste disposal and is encouraging DHMH to develop distinct guidelines for the disposal of medical waste.

Although the Committee on AIDS has helped institute many new Med Chi policies and programs this year, there is much work left to be done. The Committee looks forward to the coming year and will strive to provide additional education to the physicians and the citizens of Maryland.

Donald M. Pachuta MD, Chairperson
John C. Downs MD, Vice Chairperson

Carla S. Alexander MD
Anne Bailowitz MD
Robert J. Ancona MD
John Bartlett MD

Randy S. Berger MD
Stanley L. Blum MD
Andrew P. Fridberg MD
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Laurence Polsky
Margaret T. Snow MD
Daniel C. Wilkerson MD
Willie C. Blair MD
Alfred W. Forrester MD
Barry S. Gold MD
John M. Henderson MD
P.G Rausch MD
Phuong D. Trinh MD

Advisory Members
Eric M. Fine MD
Nigel Jackman MD
Carmine M. Valente PhD
Joyce Harper MD
Robert M. Mehl



Lonnie Bristow, MD, AMA Board of Trustees, explains his solution to the problem of American healthcare financing during Med Chi's Annual Meeting Plenary Session.

Alcoholism and Chemical Dependency

Mr. President and Members of the House of Delegates:

The Committee on Alcoholism and Chemical Dependency continued its efforts toward raising awareness concerning the dangers of alcohol and drug abuse, including smoking.

The Committee developed a white paper entitled "The Responsibility for Behavior While Under the Influence." The paper, concerned with drunk/drugged driving, was adopted by the Executive Committee and Faculty Council. The paper recognizes Chemical Dependence as a disease, supporting the concept that offenders must face the legal/social consequences of their actions. This approach allows for said consequences to be used as another tool to get the addicted individual into treatment.

During the Committee year 1989-1990, members met with Howard Richard Sampson, Director of the Alcohol and Drug Abuse Administration, to discuss areas of mutual interest and to attain common goals.

The Committee sponsored a presentation featuring "Tobacco Dependence as an Addiction" at Med Chi's Annual Meeting. The presentation, given by Jack E. Henningfield PhD, Charles D. Stegman MD, and Claude Feinstein MD, was well received.

The Committee continues to work diligently to address a wide range of concerns about substance abuse. As the year ends, the Committee is working on supporting the recognition of Addiction Medicine as a Board Certified Specialty. I wish to thank the Faculty, the Committee members and our staff for their assistance and support this past year.

Franklin T. Evans MD, Chairperson

Claude R. Feinstein MD
John H. Hirschfeld MD
Beatrice L. Selvin MD
Bruce T. Taylor MD
N. Joseph Gagliardi MD
Abraham M. Schneidmuhl MD
John R. Steinberg MD

Advisory Members
Arthur MacNeill Horton, Jr. EdD
Isadore Kaplan MD
Phil McKenna
Walter P. Pidgeon, Jr. CAE
Ludwig L. Lankford
Philip P. Nolan DDS
John Zimmerman RN, CD

Bylaws

Mr. President and Members of the House of Delegates:

The Bylaws Committee recommends the following bylaw amendments to the House of Delegates for its consideration:

1. Proposed Bylaw Amendment to the Board of Physician Quality Assurance, Article IX, Section 1

Rationale: To clarify the language in the bylaws to indicate that Med Chi is responsible for the seating of 10 of the 15 members of the Board.

Amend Article IX, Section 1, as follows: [ ] indicates deletion; CAPS indicate change.

> Section 1. There shall be a Board of Physician Quality Assurance composed of fifteen active members OF WHICH TEN OF ITS MEMBERS SHALL BE PHYSICIANS RECOMMENDED BY THE FACULTY. [and] It shall have such powers, duties, officers and meetings as are provided from time to time by law.

The Bylaws Committee recommends adoption of this proposed amendment.

2. Proposed Bylaw Amendment to Maryland Delegation to the AMA, Article XI, Section 6

Rationale: To establish an appropriate procedure for

processing of resolutions to be forwarded to the AMA House of Delegates.

Amend Article XI, Section 6, as follows: CAPS indicate change

Section 6. (a) At least two of the Delegates and Alternates to the American Medical Association shall be nominated and elected in the same manner and at the same time as that provided for the elective officers. Their terms shall begin on January 1 of the year following their election and they shall serve for a term of three years, or until their successors are elected.

(b) RESOLUTIONS TO BE INTRODUCED INTO THE AMA HOUSE OF DELEGATES SHALL BE SUBMITTED TO THE FACULTY'S DELEGATION TO THE AMA FOR REVIEW AND SUBMISSION TO THE COUNCIL FOR REVIEW AND APPROVAL PRIOR TO THE SUBMISSION OF SUCH RESOLUTIONS TO THE AMA. IN THE EVENT THE TIMING OF COUNCIL MEETINGS PRECLUDES THIS PROCESSING, SUCH RESOLUTIONS MAY BE FORWARDED TO THE EXECUTIVE COMMITTEE FOR REVIEW AND APPROVAL PRIOR TO THE SUBMISSION TO THE AMA. IN THE EVENT THE TIMING PRECLUDES THE EXECUTIVE COMMITTEE MEETINGS, THEN THE ACTION SHALL BE TAKEN BY THE AMA DELEGATION AS TO THE SUBMISSION OF SUCH RESOLUTIONS TO THE AMA.

The Bylaws Committee recommends adoption of this proposed amendment.

3. Proposed Bylaw Amendment to Committee on Drugs, Article XI, Section 7

Rationale: To include as a function of the Committee the education of both physicians and patients in the area of drug-related problems.

Amend Article XI, Section 7 as follows: CAPS indicate change; [ ] indicates deletion

Section 7. A Committee on Drugs of at least five members shall be responsible for evaluating the appropriateness of prescribing controlled dangerous drugs and shall work closely with appropriate [state and federal] GOVERNMENTAL authorities in controlling the abuse of controlled dangerous substances by physicians and be alert to legislative and regulatory proposals regarding prescription drugs, standing ready to provide expertise in this area to such agencies or groups as request it; MAY PROVIDE EDUCATIONAL MATERIAL IN THE FORM OF LECTURES AND OTHER DIDACTIC INFORMATION ON THE CURRENT KNOWLEDGE CONCERNING PRESCRIBING CONTROLLED SUBSTANCES; MAY PROVIDE SUPPORT AND ADVICE TO THE DEPARTMENT OF HEALTH AND MENTAL HYGIENE TO URGE THAT THERE ARE ADEQUATE FACILITIES AVAILABLE 24 HOURS A DAY TO TREAT ALL OF THE VICTIMS, BOTH PROFESSIONAL AND OTHERWISE, OF DRUG ABUSE AND ITS COMPLICATIONS. Its chairman and members shall be appointed ANNUALLY by the President.

The Bylaws Committee recommends adoption of this proposed amendment.

4. Proposed Bylaw Amendment to the Peer Review Commmittee Article XI, Section 23

Rationale: To define more clearly the Committee's responsibilities as they relate to the Board of Physician Quality Assurance and to conform to the law as written.

Amend Article XI, Committees, Section 23, Peer Review Committee, as follows: [ ] indicates deletion; CAPS indicate change.

Section 23. A Peer Review Committee shall consist of not less than [nine] FIFTEEN members WITH AN EFFORT MADE TO REPRESENT MAJOR SPECIALTIES. One-third of the members shall be appointed annually for three-year terms by the President. THE CHAIRMAN SHALL BE DESIGNATED ANNUALLY BY THE PRESIDENT. It shall be the duty of this committee to review the practices of Maryland physicians AS REFERRED BY THE PEER REVIEW MANAGEMENT COMMITTEE UPON REQUEST OF THE STATE OF MARYLAND BOARD OF PHYSICIAN QUALITY ASSURANCE. THE COMMITTEE SHALL REVIEW THE PRACTICES OF MARYLAND PHYSICIANS [practicing] in ALL [institutions, offices, and other] locations where medical care is rendered for the purpose of evaluating the PROFESSIONAL, PHYSICAL, AND MENTAL COMPETENCY OF PHYSICIANS [appropriateness of the care rendered as well as the competency and efficiency of the physicians rendering it]. This review shall include, but not be limited to, the quality of care rendered [medications ordered, services other than physical examination provided, and quality of the physical examination given.] AND SHALL BE CONDUCTED WITHIN THE GUIDELINES SET FORTH IN THE PEER REVIEW HANDBOOK. The committee shall also be charged with the review of the quality of care rendered by those persons under the supervision of physicians WHERE APPROPRIATE. [All complaints, allegations, and/or accusations must be as specific as possible, and submitted to the Committee Chairman, in writing, prior to initiation of a review process. The committee shall stimulate component societies to establish similar Peer Review Committees with the same purposes, but if a component society declines to establish such a committee, or refer cases to an already established committee, the Faculty's Peer Review Committee may assume original jurisdiction of the matter. Any party aggrieved by the action of a local Peer Review Committee may, within 30 days of such action, file an appeal in writing to the Peer Review Committee of the Faculty which shall review the matter on appeal; provided, however, that if a local Peer Review Committee fails to initiate or pursue action with respect to any complaint of an aggrieved party within 90 days of the referral of the matter to it, the Peer Review Committee of the Faculty may take original jurisdiction of the matter. This committee's services shall be made available to any third party payor on request, or it may institute a review of the physician's medical care delivery based upon information coming to it from any source, such as other Faculty committees, public interest groups, other professional organizations, local, state or federal agencies, or responsible and competent members of the general public. The identity of any patient, or any identifying information, shall be kept confidential by this committee. The Chairman shall be designated annually by the President.]

The Bylaws Committee recommends adoption of this proposed amendment.

5. Proposed Bylaw Amendment to Establish Attendance Requirements for Members of Council

Rationale: To improve communication between the Council and the component societies.

Amend Article VII, Council, by adding a new Section 7, automatically redesignating subsequent sections: CAPS indicate change

SECTION 7. COUNCILORS REPRESENTING THEIR COMPONENT SOCIETIES SHALL BE REQUIRED TO ATTEND AT LEAST A MAJORITY OF THE MEETINGS

OF THE COUNCIL EACH YEAR OF TENURE. IN THE EVENT A COUNCILOR HAS BEEN UNABLE TO MEET THE ATTENDANCE REQUIREMENTS AS PRESENTED IN THIS SECTION OF THE BYLAWS, THE RESPECTIVE COMPONENT SOCIETY SHALL BE ADVISED OF THE RECORD OF THEIR REPRESENTATIVE'S ATTENDANCE AND SHALL CONSIDER POSSIBLE REPLACEMENT OF THEIR COUNCILOR.

The Bylaws Committee recommends adoption of this proposed amendment.

6. Proposed Bylaw Amendment regarding Membership on Peer Review Management Committee

Rationale: To include the Peer Review Management Committee in the appropriate sections of the bylaws as one of the committees that restricts certain categories of membership from service on the Committee.

Amend Article II, Membership, Section 2(c), as follows: CAPS indicate change

(c) Associate members shall have the right to attend and participate in General Meetings; subscribe to the *Maryland Medical Journal*; have the privileges of the building, the reading room, the use of the books and to hold such meetings in the building as meet with the approval of the Executive Committee. They shall not have the right to vote or hold office in their component societies, but may be appointed to serve on committees of the Faculty, except the Committee on Physician/Patient Relations, the Committee on Physician Rehabilitation, the Committee on Peer Review, THE PEER REVIEW MANAGEMENT COMMITTEE, and the Committee on Drugs. Those associate members who are Doctors of Medicine engaged in the clinical practice of medicine shall have the right of physician's defense.

The Bylaws Committee recommends adoption of this proposed amendment.

Amend Article II, Membership, Section 4, as follows: CAPS indicate change

Section 4. Student members shall consist of those full-time students who are enrolled in an accredited medical school, and who are either domiciled or attending a medical school in Maryland, who apply for such membership on a form provided by the Executive Director. They shall have the rights accruing to associate members except that of physicians's defense, provided that any Student Member of the Faculty who is a member of a component society exclusively composed of such Student Members may exercise full membership rights and duties in such component societies. Student Members may be appointed to serve on, but not as Chairman of, committees of the Faculty except the Committee on Physician/Patient Relations, the Committee on Physician Rehabilitation, the Committee on Peer Review, THE COMMITTEE ON PEER REVIEW MANAGEMENT, and the Committee on Drugs.

The Bylaws Committee recommends adoption of this proposed amendment.

Amend Article XI, Committees, Section 39, as follows:

Section 39. The President, President-elect and Secretary shall be ex-officio members of all committees except the Nominating Committee and the Committee on Physician/Patient Relations, the Commmittee on Physician Rehabilitation, the Committee on Peer Review, THE COMMITTEE ON PEER REVIEW MANAGEMENT, and the Committee on Drugs.

The Bylaws Committee recommends adoption of this proposed amendment.

This concludes the report of the Bylaws Committee.

Karl H. Weaver MD, Chairperson, Baltimore City

Thomas E. Allen MD, Baltimore County
Brian S. Bayly MD, Prince George's County
Rose Mary H. Bonsack MD, Harford County
David S. Davis MD, Anne Arundel County
Henry P. Laughlin MD, Frederick County
Marvin Schneider MD, Montgomery County



Med Chi staff members Ralph Tyksinski and Maria Mace help an exhibitor at the Annual Meeting.

Computers in Medicine

Mr. President and Members of the House of Delegates:

The Computers in Medicine Committee held several meetings throughout the course of the year. The Committee maintains the Maryland Med-Sig, the computerized bulletin board system of the Medical and Chirurgical Faculty. Dr. H. Gerald Oster has been the system operator (SYSOP) of Med-Sig since its inception. The Committee is involved in helping the Colorado Medical Society set up a similar system. In the past year, we have helped the Pennsylvania and Delaware Medical Societies set up bulletin boards of their own. One of the Committee's goals was to provide the system as an internal Med Chi communication tool for use among Committee members.

The Committee continues a monthly department in the *Maryland Medical Journal*, Computer Bytes, which deals with helpful and current computer tips in the field of medicine. This is in accordance with the

Committee's charge to acquaint and educate physicians in the use of computers in their practices.

The Committee continues to give computer demonstrations to hospital medical staffs, using a computer with a modem, a phone line, and a projection system. Under the direction of Dr. Rafael C. Haciski, the Committee's Chairperson, a one and one-half hour demonstration was given at the Medical Faculty's Annual Meeting dealing with office computerization on the industry's leading equipment. The seminar dealt with office management software, medical software, and some of the new experimental programs being used on the APPLE computer, as well as the IBM compatible.

The Committee demonstrated the Med-Sig bulletin board system at the Medical Faculty's Semiannual Meeting in Ocean City last September.

The Committee also designed and developed a brochure that will make accessing the Med-Sig bulletin board system easier for the novice computer user. The brochure has step-by-step instructions dealing with every aspect of the system, from hardware considerations to the numerous communications software programs available, as well as all of the configurations necessary to link up with the bulletin board.

These are potential future projects:

1. Starting a physicians' computer-user group for both novices and advanced users.
2. Evaluating medical software.
3. Providing physicians with a computer equipment buyers' group.
4. Continuing in the education of physicians using computers.
5. Promoting Med-Sig as a communication tool for physicians in Maryland.

Rafael C. Haciski MD Chairperson

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Martin Berger MD
John B. DeHoff MD
Frederick C. Hansen MD
Charles A. Hartjen MD
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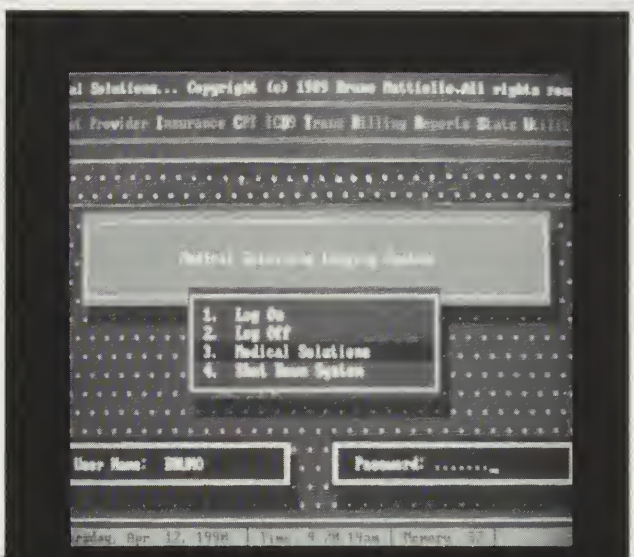
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- ☐ No annual fee for Med Chi members
- ☐ Clinical demographics

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Continuing Medical Education Review

Mr. President and Members of the House of Delegates:

The Continuing Medical Education Review Committee again has sponsored a scientific session during the 192nd Annual Meeting of Med Chi. Bernard Tabatznik MD, served as Moderator of "Learning with 'Lectronics: State-of-the-Art of Computer Assisted Learning Techniques." The invited speakers for this presentation were Tom Piemme MD and Pierre S. Pincetl MD, from the George Washington University School of Medicine. A special feature of the program was a case presentation prepared by H. Gerald Oster MD. An actual on-line hookup with the Harvard Medical School made this session an exciting demonstration of computer-assisted individualized learning, a promising method for enhancing physicians' ongoing educational development.

The Committee held six meetings during the year. Med Chi is responsible for accrediting 59 hospitals and organizations that provide Category I of the AMA's Physician Recognition Award for continuing medical education.

Actions and decisions were made with regard to the following hospitals and organizations accredited by Med Chi to provide intrastate Category I CME programs:

1. American Cancer Society, Maryland Division
2. American Heart Association, Maryland Affiliate
3. American Lung Association of Maryland
4. Anne Arundel General Hospital
5. Baltimore County General Hospital
6. Bon Secours Hospital
7. Carroll County General Hospital
8. Center for Health Education, Inc.
9. Chestnut Lodge
10. Children's Hospital, Inc.
11. Church Hospital
12. Community Psychiatric Clinic, Inc.
13. Crownsville Hospital Center
14. AMI Doctors' Hospital of Prince George's County
15. Dorchester General Hospital
16. Fallston General Hospital
17. Franklin Square Hospital
18. Frederick Memorial Hospital
19. Good Samaritan Hospital
20. Greater Baltimore Medical Center
21. Greater Laurel Beltsville Hospital
22. Harbor Hospital
23. Harford Memorial Hospital
24. Holy Cross Hospital
25. Homewood Hospital Center, Inc.
26. Howard County General Hospital, Inc.
27. Kernan Hospital
28. Leland Memorial Hospital
29. Liberty Medical Center
30. Maryland General Hospital
31. Maryland Hospital Education Institute
32. Maryland Psychiatric Society
33. Maryland Radiological Society
34. Memorial Hospital, Cumberland
35. Memorial Hospital, Easton
36. Mercy Medical Center
37. Montgomery County Medical Society
38. Montgomery General Hospital
39. The Neurology Center, P.A.
40. North Arundel Hospital
41. Peninsula General Hospital
42. Prince George's County Medical Society
43. Prince George's Hospital Center
44. Sacred Heart Hospital
45. St. Agnes Hospital
46. St. Joseph Hospital
47. Shady Grove Adventist Hospital
48. Sheppard & Enoch Pratt Hospital
49. Sinai Hospital
50. Southern Maryland Hospital, Inc.
51. Spring Grove Hospital
52. Springfield Hospital Center
53. Suburban Hospital
54. Taylor Manor Hospital
55. Union Memorial Hospital
56. University Health Center, University of Maryland
57. Veterans Administration Hospital, Perry Point
58. Washington Adventist Hospital
59. Washington County Hospital

Eugene P. Libre MD, Chairperson

James Castellano MD
Worth B. Daniels, Jr. MD
Maen Jamal Farha MD
Jawad U. Hasnain MD
Carol J. Johns MD
Henry H. Kwah MD
Abdul Nayeem MD
R. Kennedy Skipton MD
William L. Thomas MD
Irvin H. Cohen MD
Orlando R. Davis MD
J. Blaine Fitzgerald MD
Bernard Tabatznik MD
Deusdedit Jolbitado MD
Albert I. Mendeloff MD
Krishna C.V.G. Rao MD
David A. Stout MD

Advisory Members

John W. Bullard PhD
Jack L. Mason PhD
Charles E. Osborne EdD



Donald T. Lewers, MD, (l) Theme Symposium Moderator, presents Congressman Benjamin L. Cardin (r) with a Certificate of Appreciation following his speech.

Drugs

Mr. President and Members of the House of Delegates.

The Committee on Drugs primarily concerns itself with the prescribing practices of physicians referred to it by the Board of Physician Quality Assurance (BPQA), and the regulations governing the prescribing of amphetamines/methamphetamines.

The first principle that governs the Committee is that physicians will be allowed the widest possible latitude in prescribing practices as currently provided for by federal law and acceptable medical practice. The second principle is that no physician will be intimidated so as to fail to prescribe controlled substances adequately to relieve pain, anxiety, or other symptoms, when such relief is indicated. The Committee is actively involved in providing education to physicians with regard to proper prescribing practices.

The Committee prepared an application format for the prescribing of amphetamines. The Committee also developed and sponsored educational programs on drug policy and prescribing practices at the Med Chi Annual and Semiannual Meetings in April and September of 1989, and members presented testimony for Med Chi before the General Assembly in the matter of triplicate prescriptions. The Committee also held three meetings at Med Chi with leaders in the field of drug abuse and potential drug abuse treatment and education.

Furthermore, we have prepared a major drug education program for October 20 and 21, 1990 to be held at the Baltimore Convention Center, sponsored by Med Chi with the cooperation of the State and Baltimore City Health Departments, and involving the participation of NIDA, Francis Scott Key Medical Center, and Johns Hopkins Hospital.

Committee members and staff will continue to strive to maintain a balance between educating physicians with careless prescribing practices and supporting discipline for physicians who misuse their prescribing privileges.

The Chairman is appreciative of the time, effort and devotion of the Committee members and staff to this important aspect of physician education.

Nelson G. Goodman MD, Chairperson

Aaron Ament MD
George H. A. Bone MD
Lewis H. Dennis MD
Barry S. Gold MD
Ramesh K. Khurana MD
Patrick J. Sheehan MD
John R. Smith MD
Juan A. Beltran MD
Thomas C. Cullis MD
Stanley Z. Felsenberg MD
Nelson H. Hendler MD
Lawrence Y. Kline MD
John A. Singer MD
Richard F. Tyson MD

Editorial Board, Maryland Medical Journal

Mr. President and Members of the House of Delegates:

This report covers the period from August 1989 to August 1990, during which *MMJ* maintained good financial health and significant growth. Total page count for Volume 38 was 1,114 (up 118 pages or 11.5 percent from the previous year); issues averaged 95 pages (up 10.5 percent from Volume 37); and distribution was about 7,186 copies per month. Our national and local publisher's representative maintained advertising space in *MMJ* at a 34 percent average across the year. This was slightly lower than in previous years because of the increased number of text pages per issue. Production costs have remained relatively stable for several years (at $ 0.015 - 0.019 per page) despite increasing printing and paper costs; postal rates continue to increase.

There were five special issues produced during this period. The October issue on International Health addressed the role of physicians who lived in or were trained in Maryland in the control/eradication of four specific diseases: yellow fever, smallpox, malaria, and typhoid. One article on primary healthcare showed that what is learned in international health may be applied in areas such as Western Maryland.

The November issue, Understanding and Management of Genetic Disorders, represented a broad range of thought about genetics: from primary care for patients with genetic disorders (as well as their families) to ethical considerations including informed consent, confidentiality, and disclosure to recent advances made in molecular genetics, biochemical genetics, and cytogenetics.

January's Legislative issue included Med Chi's Legislative Directory and four Faculty Position Papers. The February issue, AIDS: Living Long and Living Well, presented 13 articles and commentaries exploring many of the traditional and some of the less-traditional approaches to the treatment and prevention of AIDS. In honor of the Centennial of the Johns Hopkins Hospital and School of Medicine, the April *MMJ* featured 15 articles showing the present generation of physicians and scientists who continue the Hopkins tradition.

The May issue highlighted Reynaldo L. Lee-Llacer MD, 1990-1991 President of Med Chi, who took office on May 11.

There have been 11 Board meetings in this period. In 1989, of 107 manuscripts received, 2 were withdrawn and 29 were not approved, indicating a 28 percent rejection rate. The tentative Editorial Calendar is complete through January 1991, and another three dedicated issues (Systemic Lupus, University of Maryland Department of Medicine, and Cardiovascular Risk Factors: Prevalence and Programs of Interest to Clinicians) are slated for publication during the remainder of next year.



MMJ Managing Editor Ann Wintriss (l) and Associate Editor Henry P. Laughlin, MD (r) discuss upcoming issues of the MMJ.

MMJ continues to invite comments as well as scientific articles. During the 1989 volume year and through June 1990, seven Commentaries and seven Letters to the Editor have been published.

The third annual "Best Article" awards were presented at Med Chi's Semiannual Meeting in September 1989. The best practitioner's article, "Acute Pulmonary Histoplasmosis Outbreak Following Home Renovation," by Carl I. Schoenberger MD, J. H. Weiner MD, Frank J. Mayo MD, Jeanne Spellman MD, and Robert G. Waltersdorff PhD, appeared in the June 1988 issue. The best article by a resident, "Elective Repeat Cesarean Section: Old Controversy, New Concepts," by Charles Canady MD with Phillip J. Goldstein MD, was in the February 1988 issue.

The Editorial Board and the Managing Editor are most grateful to various specialists in the Maryland medical community who graciously contribute their time and expertise to the review of manuscripts for our publication. The following physicians assisted in *MMJ's* review process during the past year:

John G. Bartlett MD, John A. Kastor MD, Eugene Katz MD, Kenneth B. Lewis MD, Paul R. McHugh MD, Joseph S. McLaughlin MD, Lawrence C. Pakula MD, Bruce A. Reitz MD, and Myron L. Weisfeldt MD.

We also appreciate the careful attention of individual department editors who monitor their columns for scientific accuracy and correct citations.

Those associated with the production of the *Maryland Medical Journal* encourage Med Chi members to communicate regularly and often about any and all facets of the publication.

Victor R. Hrehorovich MD, Editor
Henry P. Laughlin MD, Associate Editor

Richard A. Baum MD *DeWitt E. DeLawter* MD
James P.G. Flynn MD, MPH *Frederick J. Heldrich* MD
Elmer Hoffman MD
Carmine M. Valente PhD, Advisory Member
Ann Wintriss, Managing Editor

Emergency Medical Services

Mr. President and Members of the House of Delegates:

The Committee is pleased to report that it conducted three meetings during the course of this year and discussed many subjects of current importance to Emergency Medical Services (EMS); including emergency department (ED) overcrowding, EMS on the Conjoint Managed Care Committee and the Medicaid Initiative.

Because statistics from a survey of 50 Maryland hospital emergency departments, conducted by the Maryland Chapter of the American College of Emergency Physicians (ACEP), revealed that 75 percent of the departments experienced some degree of overcrowding, the Committee prepared and forwarded a formal letter to the President of Med Chi alerting and apprising him of this serious condition. The Committee was also very supportive in promoting and attending the presentation on ED overcrowding by Stephan G. Lynn MD, the National ACEP Task Force Chairman on ED Overcrowding. The presentation was cosponsored by Med Chi and the Maryland Chapter of ACEP during the Med Chi Annual Meeting.

The EMS Committee developed a list of HMO and perceived patient care inadequacies for presentation to the Conjoint Managed Care Committee. On April 26, 1990, a final document of this Committee was returned to each representative organization for final ratification and incorporation. Unless specifically disapproved, this document will serve as policy governing the patient care, operational and financial issues as agreed. Many of the concerns that were brought by the EMS Committee were discussed and resolved. It was stressed that emergency physicians should serve as patient advocates in emergency healthcare situations.

Other issues of interest discussed by the Committee include:

a. The new MIEMSS helicopter protocol
b. The MIEMSS hospice protocol
c. The development of a computer registry of patients with a living will
d. The possible role of veterinary services during disasters and other mass emergencies
e. The development of a section of the Med Chi computer bulletin board for EMS activities
h. Availability of emergency obstetrical and pediatric services in sections of Maryland
g. ACEP position paper on "Patients' Rights and Responsibilities Under Managed Care"

It has been my pleasure to serve Med Chi as Chairman of this Committee.

Peter M. Fahmey MD, Chairperson

Barbara J. Bach MD *Lawrence F. Blob* MD
Alexander P. Cadoux MD *John B. DeHoff* MD
Randy S. Ellis MD *Jeffrey L. Fillmore* MD

Sergio B. Mateo MD
William K. Mysko DO
Bradford A. Ross MD
Keith T. Sivertson MD
Frederick Miltenberger MD
Ameen I. Ramzy MD
Walter L. Scheetz MD
Michael A. Stang MD



Stephan G. Lynn MD, FACEP accepts the I. Ridgeway Trimble, Jr. Award from Louise Stomierowski MD, FACEP, Officer, Maryland College of Emergency Physicians, following his session on "Emergency Department Overcrowding."

Finance

Mr. President and Members of the House of Delegates:

The Finance Committee met regularly to monitor the actual income and expenditures compared to the Budget for the year 1989. A zero-based budget was developed for the year 1990. It is divided into departments or cost centers so that results of operations can be identified and controlled more efficiently. The consolidated budget for 1990 reflects a small net income in excess of expense.

A meeting was held with representatives of the Bowman Financial Management Company to review the Faculty investment portfolios. The market value of the Consolidated Fund at December 29, 1989 was $1,720,215. The Steiner Fund market value was $1,009,652. The Pension Plan Fund was $1,434,587. The year 1990 opened with the Dow Jones Industrial Average rising almost 57 points to a record high. The rally was triggered, in part, by a report that the economy's slide toward a recession may have slowed.

The Faculty remains in a solid financial condition, and the outlook for 1990 is very positive.

Jose M. Yosuico MD, Chairperson

Albert M. Antlitz MD
Gerald A. Glowacki MD
William J. Banfield MD
Francis C. Mayle, Jr. MD

Hospital Medical Staffs

Mr. President and Members of the House of Delegates:

The Committee on Hospital Medical Staffs addressed the concepts and ideas expressed in a number of resolutions developed during the AMA's 1989 Annual Meeting. Specifically, it supported the position that third-party funds paid to hospitals for legally mandated, medical quality assurance peer review and credential activities be used to compensate medical staff members for time devoted to work in these areas. To conform with the spirit of AMA resolutions 37, 163, 224 and 231, and in compliance with JCAHO medical self-governance and due process standards, the Committee supported the development of a uniform due process and fair hearing procedure for hospital medical staff members whose privileges may be restricted prior to reporting such actions to state and federal agencies. In essence, this was accomplished by the inclusion of such procedural requirements in the model medical staff bylaws developed by Med Chi legal services.

A large portion of the Committee's effort was directed toward the development of a centralized credentialing service for hospital medical staff members. The Maryland Hospital Association joined with Med Chi to provide this essential service through a separate joint venture comprised of representatives from the parent organizations.

The Committee continued to provide advisory counseling and mediation activities in the area of medical staff and hospital relationships. A number of hospital medical staffs participated in this Med Chi provided service.

As Chairman, I wish to express my sincere appreciation to the members of the Committee for their dedication. On behalf of the Committee, I would like to thank the Executive Committee and the Council for their continued support and encouragement.

Victor R. Hrehorovich MD, Chairperson

Ruben F. Ballesteros MD
Louis Breschi MD
Roy B. Dawson, Jr. MD
John W. Eckholdt MD
Vincent D. Fitzpatrick MD
A. Hamid Ghiladi MD
Michael F. Jaworski MD
Francis C. Mayle, Jr. MD
Andrew Nowakowski MD
Stephen K. Padussis MD
Jerome Reichmister MD
Marvin Schneider MD
John Umhau MD
Habib A. Bhutta MD
M.S. Cockburn MD
Benjamin DelCarmen MD
Victor R. Felipa M
L. Myrton Gaines, Jr. MD
Robert Goldstein MD
Deusdedit Jolbitado MD
Gary Milles MD
Jose Y. Ortiz MD
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Legislative

Mr. President and Members of the House of Delegates:

The 1990 Maryland General Assembly was another productive legislative session for the physicians of Maryland. With the guidance and support of Governor William Donald Schaefer, Speaker of the House R. Clayton Mitchell, Jr., and President of the Senate Thomas V. Mike Miller, Jr., many needed changes to existing law were effected. Other measures designed to erode the quality of healthcare in Maryland were defeated.

The physicians of Maryland were well represented through the Chairman of the Committee, Susan Guarnieri MD, and lobbyists Gerard Evans, Alan Rifkin, Judge Edgar Silver, Linda Lamone and Gregory Hall of the law firm of Rifkin, Evans, Silver and Lamone.

The following account of major issues considered by the Legislative Committee of the Medical and Chirurgical Faculty covers only legislation of significant statewide interest tracked by the Government Relations Office.

The Government Relations Office is staffed to answer and address concerns of physicians through legislative action. Contact Gerard E. Evans, Esq., General Counsel, 224 Main St., Annapolis, MD 21401 if you have any concerns or questions about how the office may assist you.

The Faculty thanks F. Carvel Payne, Director, State Department of Legislative Reference, for graciously providing most of the following information.

The 1990 Session of the Maryland General Assembly had several surprises, not in terms of legislation introduced or amended, but in the way several physician groups addressed major bills. Although the Medical and Chirurgical Faculty is widely recognized as the institution that speaks for Maryland physicians, it becomes increasingly difficult to present a united front when other medical groups hold positions different from the State Medical Society and, in fact, oppose the Faculty's legislative agenda. Most Legislators, like the public at large, become confused when confronted with diverse and opposing views concerning the practice of medicine. At the national level, some physician groups are acting independently of organized medicine. Unfortunately, we now see this happening in Maryland. Fortunately, the Faculty has a proud tradition in Annapolis working with Legislators. Consequently, the Faculty's opinion carries significant authority.

The Faculty enjoys success in Annapolis largely due to the effort of individual physicians. Countless physicians took time from their practices and families to promote Med Chi's lobbying effort during the 1990 Session. Unlike many other organizations, Med Chi members as individual practitioners have relationships with members of the Maryland General Assembly. These relationships, founded on trust, give physicians invaluable access to Legislators, who respond not to some faceless organization but to the needs of a highly regarded association comprised of dedicated medical practitioners. If the Faculty is to enjoy continued success in Annapolis, these physician key contacts must be further developed and expanded.

Issues such as Mandated Medicare Assignment, physician ownership of and referral to healthcare facilities, and triplicate prescription will probably be seen in the upcoming Legislative Session. It is imperative that physicians keep up-to-date on these issues so that a united front can be maintained by the Faculty when these issues are discussed.

Abortion The abortion rights proposal, Senate Bill 356/House Bill 432 (both failed), as originally introduced, would have prohibited the State from interfering with the decision of a woman and her physician to have an abortion if the physician concluded in good faith and in the physician's best medical judgment, that the fetus was not viable. Once the fetus was viable, a physician would have been prohibited from performing an abortion unless the physician concluded that the woman's life was in danger, or the fetus was affected by a genetic defect or serious deformity or abnormality. The Omnibus Bills would have allowed a physician to perform an abortion on an unmarried minor without parental notification if, in the professional judgment of the physician, the minor were mature and capable of giving informed consent. Prior to performing an abortion on a minor, the physician would have had to obtain the minor's informed consent. Senate Bill 356/House Bill 432 also would have repealed an existing but unenforceable Maryland statute that requires all abortions to take place in an accredited and licensed hospital and be approved by a hospital abortion review committee.

Although Senate Bill 356 was passed by the Senate Judicial Proceedings Committee, its report to the Senate floor prompted an 8-day filibuster. In order to bring an end to the filibuster, a compromise was reached between the two sides. As a result of the compromise, the Omnibus Bill and an anti-abortion



Physicians registering at this year's Annual Meeting received a Med Chi Meeting folder containing the program, related flyers and tickets to social events, as well as computer-generated nametags.



Council Chairman J. David Nagel, MD officiates at the Council Meeting.

measure, Senate Bill 836 (failed), were both amended and passed on to the House of Delegates.

As originally introduced, Senate Bill 836 would have required facilities that perform abortions to submit quarterly reports to the Department of Health and Mental Hygiene. The Department would then have been required to compile a statistical report based on the information provided in the quarterly reports. Senate Bill 836, as amended in accordance with the compromise, would have prohibited a physician from performing an abortion when the unborn child was determined to be nonviable unless the physician certified by affidavit that the procedure was necessary and: (1) continuation of the pregnancy was likely to result in the death of the woman; (2) the woman was the victim of rape, sexual offense, or incest, which had been reported to a law enforcement agency or a public health or social agency; (3) the unborn child was affected by a genetic defect or serious deformity or abnormality; or (4) there was a substantial risk that continuation of the pregnancy could have a serious and adverse effect on the woman's present or future physical health. If the physician determined that the unborn child was viable, Senate Bill 836 would have prohibited the physician from performing the abortion unless it was necessary to save the life of the woman. Further, if the physician determined that the abortion was necessary to save the life of the woman, the physician would have been required to call in a second physician to attend the infant-patient in case the infant-patient survived the abortion attempt. Senate Bill 836 would have also set up a judicial bypass system for minors to be used when the physician could not give the required written notice to the minor's parents or guardian prior to performing an abortion, or when notice would have been in the minor's best interest.

As amended, both bills would have: (1) prohibited abortions performed solely for sex selection; (2) required physicians who perform abortions to comply with certain practice standards; (3) required a physician to perform viability testing if the physician believed that the woman was carrying a viable child, or an unborn child of 20 or more weeks gestational age; (4) required the voluntary and informed consent of the woman and that certain information be given to the woman; and (5) required any person who performs abortions to complete a statistical form designed by the Department of Health and Mental Hygiene.

As part of the compromise and with the expectation that both the anti-abortion measure and the abortion rights measure would be presented to the voters by referendum, both bills contained contingency clauses. Senate Bill 836 would have taken effect only if Senate Bill 356: (1) was enacted by the General Assembly and signed by the Governor; and (2) was rendered void, in its entirety, for any reason, including disapproval by the voters in a referendum. The contingency clause on Senate Bill 356 simply stated that it was contingent on the enactment and signing by the Governor of Senate Bill 836.

Both bills failed in Committee in the House of Delegates.

Other bills relating to the issue of abortion contained elements that were incorporated into one or both of the bills that passed in the Senate.

AIDS Insurance Assistance Pilot Program Individuals with AIDS and HIV-related diseases often become so ill that they are unable to work. When they become unemployed and are unable to continue to purchase health insurance, many eventually come to rely on the Medical Assistance Program to pay for their medical expenses. To help alleviate this monetary strain on Medical Assistance, the General Assembly established the Maryland AIDS Insurance Assistance Pilot Program. This 2-year Pilot Program, contained in House Bill 905 (passed), authorizes the Secretary of Health and Mental Hygiene to pay insurance premiums to insurance carriers or employers of persons with HIV-related diseases. The Program will be limited to a maximum of 150 persons at any one time. To be eligible, an individual: (1) may not have cash assets exceeding $10,000; (2) may not have family income exceeding 200 percent of the federal poverty level; (3) must not be eligible for continuation of benefits through the individual's former employer and

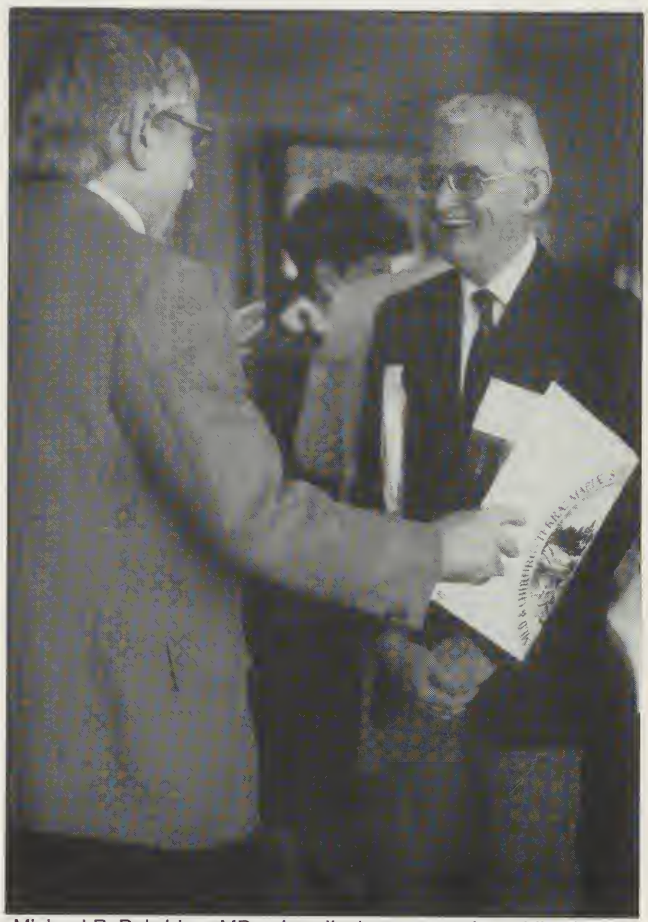
the provisions of the Consolidated Budget Reconciliation Act of 1985; (4) must not be eligible for health insurance through another family member; (5) must be certified by a physician to be HIV positive and as a result, either too ill to continue working or unable to work within 3 months; and (6) must be a resident of the State.

House Bill 905 requires the Department of Health and Mental Hygiene to submit an annual report to the Governor and the General Assembly that summarizes program expenditures, numbers of recipients, program effectiveness, the estimated savings to the Medical Assistance Program, additional costs incurred by private insurance companies, and the loss of federal funding.

Other AIDS Legislation The legislature considered again, but did not pass a number of bills introduced that would have required the notification of individuals when there has been an exposure or potential exposure to the human immunodeficiency virus (HIV) infection, AIDS, or AIDS-related disease. House Bill 570 (failed) would have required that an individual furnish a blood sample to be tested for the presence of the HIV infection when a documented exposure occurred between the individual and a healthcare provider. Senate Bill 496/House Bill 574 (both failed) would have required notification to morticians or notification on a death certificate, if the deceased was diagnosed as having AIDS, AIDS-related disease, or the HIV infection. Senate Bill 598/House Bill 721 (both failed) would have required mandatory testing for sex offenders. House Bill 434 (failed) would have mandated reporting the names of persons testing positive for HIV infection to the Department of Health and Mental Hygiene.

Two bills aimed at the insurance industry and AIDS testing failed for a second time. House Bill 1155 (failed) would have allowed a heath maintenance organization to test applicants for the presence of HIV infection or for a sickness or medical condition derived from the HIV infection, if the test is given to all such applicants or the decision to test is based on an applicant's medical history. House Bill 1172 (failed) would have allowed an insurer to test for the presence of the HIV infection or for a sickness or medical condition derived from HIV if the test is required for all persons in the applicant's risk class with the same threshold coverage amounts, or the decision to test is based on the applicant's medical history or current medical condition.

Medical Assistance An administration proposal, Senate Bill 388/House Bill 498 (both passed), expands medical and healthcare coverage under the Maryland Medical Assistance Program to include children from age one through five years whose family incomes fall below 133 percent of the poverty level and authorizes the State to provide coverage to children ages six and seven whose family incomes fall below 100 percent of the poverty level. This bill was necessary due to changes in federal law requiring coverage of children in the one to five category beginning April 1990. This change is expected to expand coverage to an additional 13,688 children in the State. House Bill 351 (CH.44) raises the co-payment under the Pharmacy Assistance Program from $1.00 to $1.50 due to the increase in the cost of pharmaceuticals.



Michael R. Dobridge, MD enjoys lively conversation while visiting technical exhibits at the meeting.

Alcohol and Drugs Senate Bill 722 (passed) repeals the authority of a judge to commit a criminal defendant with a chronic alcohol problem to the Department of Health and Mental Hygiene for evaluation and treatment.

House Bill 563 (passed) requires the Alcohol and Drug Abuse Administration to evaluate the success and effectiveness of each alcohol abuse and drug abuse treatment program licensed or certified by the Department of Health and Mental Hygiene. This evaluation must consist of outcome research studies performed on a representative sample of individuals who have received treatment under the program to determine the extent to which individuals: (1) have been successfully discharged from the treatment program; and (2) have successfully controlled their alcohol or drug abuse problems after being discharged from the program. House Bill 563 requires that the Administration adopt regulations necessary to perform the required

outcome research studies and establishes an Alcohol and Drug Abuse Treatment Research Advisory Committee to develop the methodology necessary to conduct the outcome research studies and advise the Administration.

Professionals Seeking Regulation The General Assembly considered two proposals that would have regulated additional classifications of health professionals. Senate Bill 486/House Bill 937 (both failed) would have established the Board of Human Services Professionals to serve as an umbrella regulatory board for marriage and family therapists and professional counselors. Under the bills, each practice specialty would have had a Standards Committee that would have established requirements for certification in the particular practice specialty. House Bill 1314 (failed) would have required the State Board of Chiropractic Examiners to establish a registration system for massage practitioners, in addition to criteria for education, training, and experience.

Rehabilitation Committees House Bill 1187 (passed) requires the establishment of rehabilitation committees for the following health occupations that do not already have such committees: audiologists, chiropractors, dental hygienists, dietitians and nutritionists, electrologists, morticians, nursing home administrators, podiatrists, professional counselors, psychologists, social workers, and speech language pathologists. In order to achieve administrative economy, a rehabilitation committee may function jointly with the rehabilitation committee of another health occupation.

Credentialing of Physicians Senate Bill 784/ House Bill 1255 (both passed) alter the definition of a medical review committee to include a new organization, Healthcare Credentials Verification, Inc. This nonprofit corporation will collect and disseminate the information needed by hospitals to credential physicians for medical staff appointment and reappointment. The peer review information maintained by the organization will receive the same protection from discoverability and disclosure that currently applies to the information maintained by medical review committees in hospitals.



Physicians view a slide presentation during one of more than 35 Scientific Sessions at Med Chi's 192nd Annual Meeting.

Healthcare Practitioner Investment In recent years, both state and federal lawmakers have focused on investments by healthcare practitioners in healthcare services to which referrals are made. Opponents of investment argue that practitioner investment results in overutilization of medical services and corresponding increases in healthcare costs, in addition to the creation of a conflict between the best interests of a patient and the financial interests of the referring practitioner. Proponents argue that this type of investment encourages healthy competition among physicians, and that in some communities, physician investment may result in the availability of a service that otherwise would not have been available in a community.

Legislation concerning healthcare practitioner investment was introduced during the 1990 Session but did not pass. House Bill 779 (failed), as amended, would have prohibited a physician from referring a patient to a bioanalytical laboratory in which the physician had a financial interest. Senate Bill 670 (failed) would have prohibited a physician from referring a patient to a healthcare service or receiving a referral of a patient from a healthcare service, if the physician would have received a direct or indirect rebate, refund, commission, unearned discount or profit, or other unearned valuable consideration for the referral. Senate Bill 585 (failed) would have prohibited a healthcare practitioner from referring a patient to a healthcare service in which the physician had a financial interest, unless the practitioner disclosed to the patient the existence of the interest.

Dispensing of Prescription Drugs A bill that would have established a Prescription Drug Utilization Review Program in the Department of Health and Mental Hygiene failed during the 1990 Session. Senate Bill 658 (failed), as amended, would have created a Prescription Drug Oversight Commission to develop and implement a program to curb the diversion of Schedules II, III, and IV controlled dangerous substances into unlawful channels and retard the misuse of these drugs in this State. The bill would have also established a Drug Utilization Review Coordinating Office that would have collected information on providers, prescribers, and patients. The Division of Drug Control would have analyzed the prescribing and dispensing patterns of prescribers and dispensers. The Governor has issued an Executive Order which sets up a structure very similar to the proposed legislation aimed at prescription drug abuse.

Legislation was passed affecting the prescribing and dispensing of prescription drugs by nurse midwives, in addition to the prescribing of prescription drugs by nurse practitioners. Senate Bill 714/House Bill 683 (both passed) authorize a nurse midwife who treats patients at a nonprofit medical facility, a health center on a campus of an institution of higher education, a public health facility, a medical facility that contracts with a State or local health department, or a publicly funded facility to prescribe and dispense certain sub-

stances commonly used in the practice of nurse midwifery. Senate Bill 715/House Bill 1191 (both passed) expand the definition of "authorized prescriber" to include other individuals who are authorized by law to prescribe drugs, medicines, or devices. This will enable nurse practitioners to prescribe certain drugs.

State Board of Physician Quality Assurance Legislation altering the operation of the State Board of Physician Quality Assurance passed in this Session. Senate Bill 138 (passed) authorizes the Board to place a physician on inactive status and to order an allied health professional to submit to an appropriate examination in connection with an application for licensure, certification, or registration, or in connection with an investigation of an allegation against an allied health professional. In addition, the bill establishes antilapse provisions for acupuncturists, physician assistants, and other allied health professionals and requires the Board to assess each applicant for licensure to practice medicine or for renewal of a license, a biennial fee of $50 to be used to fund the Physician Rehabilitation Program.

Medical Records Senate Bill 584 (passed), the product of interim study, requires healthcare providers and facilities to keep the medical record of a patient confidential and mandates disclosure of the record upon the authorization of the patient or the "person in interest" for the patient. The bill sets up procedures for obtaining a record, permits disclosure without authorization in specified circumstances, and details when disclosure of a mental health record without authorization is allowed (for example, to the director of an adult or juvenile correction or detention facility). A related bill, Senate Bill 736 (passed), mandates that when an individual is transferred between units of a public mental hygiene facility or between facilities, records necessary for continuing care must be transferred as well.

Regulatory Measures The Committee provided resources in the form of people and written testimony to the Maryland Health Resources Planning Commission regarding its adoption of Cardiac Surgery and Therapeutic Catheterization Services in the State Health Plan. The Committee was also involved with physician laboratory regulations proposed by the Laboratory Administration of the Department of Health and Mental Hygiene. Currently, the Committee is assisting with the adoption of HIV testing guidelines.

Susan R. Guarnieri, Chairperson

Gerard E. Evans Esq.
Mrs. Carol Allen
Neil J. Barkin MD
James E. Bell MD
J. Kevin Belville MD
Albert L. Blumberg MD
Norman K. Bolrer MD
Herman Brecher MD
Howard D. Bronstein MD
Jeffrey A. Abend MD
Mrs. Neilson Andrews
Laurel Baron-Mendelsohn
Stuart B. Bell MD
Joseph W. Berkow MD
Harold B. Bob MD
Niel J. Borrelli MD
Rudiger Breitenecker MD
William F. Bruther MD
Paul Burgan MD
Mrs. Maureen Carr-York
William A. Crawley MD
Donald H. Dembo MD
Michael R. Dobridge MD
Randy S. Ellis MD
Joel L. Falik MD
Harvey Fernbach MD
Gasem Gasemy MD
Robert B. Goldstein MD
James P. Hartley MD
Hilda I. Houlihan MD
Victor R. Hrehorovich MD
Thomas E. Hunt MD
Jess C. Jimenez MD
Murray A. Kalish MD
Robert R. Kent MD
Bernadette Lane
Donald T. Lewers MD
Seth H. Lourie MD
Raymundo S. Magno MD
Joseph J. Martinez-O'Hara MD
Robert A. Mendelsohn MD
Basil S. Morgan MD
John G. Newby MD
Susan W. Owens MD
Andrew V. Panagos MD
Susan K. Pearson MD
Philip Pollner MD
Gary W. Pushkin MD
James F. Rosborough, Jr. MD
Gary L. Rosenberg MD
Sidney B. Seidman MD
Michael S. Shear MD
Mrs. Sue Sherwood
James E. Smith, II MD
Melchijah Spragins MD
J. Andrew Sumner MD
Mehdi L. Yeganeh MD
David P. Zajano MD
Gerald J. Carroll MD
John W. Clark MD
Thomas Carlton Cullis MD
Mr. Dan Devito
Paul T. Elder MD
Bulent Ender MD
Joseph S. Fastow MD
Vincent J. Fiocco MD
Robert D. Gober MD
Nelson G. Goodman MD
Magdi H.G. Henein MD
Homer C. House MD
Barbara Hulfish MD
Allan D. Jensen MD
Allen H. Judman MD
Harry R. Katz MD
Thomas F. Krajewski MD
Steven Z. Lenowitz MD
Mayer C. Liebman MD
Michael O. Magan MD
Robert L. Marcus MD
Jack C. Meshel MD
Hiroshi Nakazawa MD
Gary W. Nyman MD
Stephen K. Padussis MD
Chris Papadopoulos MD
Michael E. Pelczar MD
Lawrence S. Prichep MD
Ernesto Rivera-Rivera MD
Robert Ruderman MD
K. Edward Shanbacker
Edward L. Sherrer MD
Keith T. Sivertson, MD
Margaret T. Snow MD
Albert J. Strauss, Jr. MD
Israel H. Weiner MD
Nancy P. Youssefi MD
Joseph W. Zebley, III MD



Many instructive topics are covered during the scientific sessions where Maryland physicians earned CME credits.

Liaison with the Medical Assistance Program

Mr. President and Members of the House of Delegates:

The Liaison Committee with the Medical Assistance Program has devoted most of its time this year to plans of the Department of Health and Mental Hygiene (DHMH) to institute a system of managed care for Maryland Medicaid recipients. Under the proposed program, effective January 1, 1991, each Medicaid patient would choose a primary care provider (PCP), who would be responsible for approving most non-emergency medical care services for the patient. It is anticipated that healthcare coordinated by a patient's physician would be less costly and more efficient than the present system and that this arrangement would dramatically reduce duplication of services and inappropriate use of costly emergency room services. In addition to increasing the quality of care and reducing costs, one state with a similar program (Kentucky), reports improved continuity of care and a high level of satisfaction by physicians and patients in the program.

Committee members were given opportunities for input early in the planning stage. We have emphasized the importance of streamlined procedures, the reduction of paperwork and hassle for the primary care physician, and quality of care issues. As a result of savings that would accrue from a managed care system, DHMH has stated that fees for primary care services (consultations and office visits) would be substantially increased. By direction of the Med Chi Council, the Committee will be working with DHMH on introducing the Program to physicians and Medicaid recipients, and reviewing promotional materials and other aspects of marketing. In the next year we hope that Med Chi will have an opportunity to help evaluate the effectiveness of the program and have a role in resolving problems that may arise during or after implementation.

Gary L. Rosenberg MD, Chairperson

Carla S. Alexander MD
Marsha Brown MD
Irvin B. Kaplan MD
Selvin Passen MD
John H. Sadler MD
Joseph W. Zebley, III MD
Joseph F. Bowes MD
Karl M. Green MD
Eugene H. Owens MD
Anthony Perlman MD
Johnny T. Yap MD

Advisory Members
Mary Mussman MD
Larry Payne
Joseph Millstone
Nelson Sabatini

Library and History

Mr. President and Members of the House of Delegates:

In 1989-1990, the Library and History Committee met seven times.

Four goals, two short-term and two long-term, were identified and addressed: 1) Evaluation of the quality and quantity of library services; 2) Methods of increasing revenue for the library; 3) Maintenance and preservation of the rare book, pamphlet and portrait collections and 4) plans for publications and exhibits in celebration of the Bicentennial of the Medical and Chirurgical Faculty of Maryland in 1999.

Short-Term Goals *Evaluation of the quality and quantity of library services.* Two surveys, conducted in 1989, were evaluated. A questionnaire relating to knowledge and use of the library's services was sent to all Maryland medical libraries. There was a 44 percent return rate. Ninety-one percent of the libraries were aware of our services. A number of libraries requested copies of our brochure outlining these service. Several libraries suggested that we supply them with a poster to acquaint their users with our services.

A survey was also made of individual Med Chi members' use of library services. This questionnaire offered members the opportunity to request new services. A total of 571 questionnaires were returned by individual members of Med Chi. The majority of members use journals as their primary source of medical information. Hospital libraries are their primary source for references. The computerized Med-Sig Bulletin Board, a free service operating 24 hours a day for library requests and exchange of information, was popular with physicians who have home computers. No specific new services were requested.

Use of the library services remained constant for 1988-1989 and for 1989-1990, with one pleasant exception. Requests from local and out-of-state medical libraries increased 200 percent, indicating widespread recognition of the library in terms of available information and quick and efficient service.

Methods for increasing revenue for the library. The charges for the use of the library and its services by non-members and organizations were compared with charges of a number of local and national medical libraries. Med Chi's charges were found to be substantially lower than charges by other libraries. We have, therefore, increased our fees for non-members, to bring them in line with current charges by medical libraries. We estimated that the revenue from these services will increase between 50 and 75 percent in the next calendar year.

There have been other methods for increasing revenue. Mr. Szczepaniak is currently serving as a consultant to the Western Maryland Outreach Pilot Project, a program funded by the National Library of Medicine to teach health professionals computerized literature-searching.

A brochure describing the meeting and catering

facilities available at Med Chi has been completed and will be distributed to approved caterers in the area. This brochure should increase public awareness of our facilities and increase income from room rentals.

Mr. Szczepaniak plans to apply to the National Endowment for the Arts for a grant to support the preservation of the pamphlet collection. He is also investigating other funds that might support preservation of the rare book collection.

Long-Term Goals *Maintenance and preservation of the rare book, pamphlet and portrait collections.* Mr. William Sleeman, our archivist from February to December 1989, has developed a comprehensive 5-year plan for the computerization and preservation of the rare book, pamphlet and portrait collections. Mr. Sleeman's departure in December has left the library without a full-time archivist and the plan could not be implemented. However, continuation on a reduced scale of deacidification of the pamphlet collection has continued; the pilot program having demonstrated the safety of this method of preservation. The Committee now plans to solicit the services of a small cadre of retired members of the Faculty to volunteer to proceed with the 5-year plan. Mr. Sleeman has agreed to offer a training course to these volunteers; and workspace and supervision will be provided by current library staff. Estimates for the cleaning and repair of the portrait collection have been obtained but funds are not available at the present time.

Plans for the library's role in the Bicentennial Anniversary of the Med Chi Faculty. The Committee has continued to explore the most appropriate way to update the two volumes published for the centennial and sesquicentennial years; Eugene Cordell's *Medical Annals of Maryland* and *Celebration of the Sesquicentennial of the Medical and Chirurgical Faculty of the State of Maryland.* Possibilities include an update of the 1949 sesquicentennial volume; a history of Med Chi from 1950-1999 compiled from Med Chi records and interviews with ex-presidents of Med Chi; and an oral history of medicine in Baltimore from 1950-1999. The Committee would welcome hearing from any members who would like to participate in this project.

Dr. Ronald Fishbein has met with Mr. Paul Hadley, Director of the Maryland Science Center, and Ms. Rayleen Decatuer, Director of Exhibits of the Maryland Science Center, and a joint exhibit directed toward interesting school students in the field of medicine is being explored.

The Committee wishes to extend its thanks to Adam Szczepaniak and William Sleeman for their hard work and cooperation with the Committee. As Chairperson, I would like to thank Committee members for their cooperation, enthusiasm and support of the library. A special thanks goes to the commuting members of the Committee.

Nancy T. Nichols MD, Chairperson

Samuel J.Abrams MD
Victor E. Albites MD
Conrad B. Acton MD
Christopher T. Bever MD
John W. Buckley MD
Edward Cornfeld MD
David W. Fricke MD
J. Michael Hamilton MD
Lewis M. Burdette MD
Ronald H. Fishbein MD
Milford M. Foxwell MD
Henry B. Wilson MD

Long-Term Care and Geriatrics

Mr. President and the Members of the House of Delegates:

The Committee on Long-Term Care and Geriatrics met seven times during the 1989-1990 year to discuss areas related to long-term care and geriatric medicine.

The Committee continued its long-standing commitment to assuring the highest quality of care in long-term care facilities, concentrating on establishing medical quality assurance guidelines for use in long-term care institutions. The intent of an upcoming survey to nursing home medical directors, alternate medical directors, and the academic community, is to establish a state-wide consensus on the minimum guidelines for standards of care in nursing home medicine for admission history and physicals, routine care and annual examinations. The survey results will be used to assist medical directors in their quality assurance efforts in nursing homes through standardization of documentation of mandated doctor/patient interactions and clarification of medical staff responsibilities. The guidelines should also be helpful in license and certification surveys, and for the documentation necessary for re-evaluation of reimbursement for services in the long-term care setting.

The Committee sponsored a scientific session at the 1990 Annual Meeting of Med Chi entitled "Long-Term Care Insurance." The attendance and response were good.

The Committee looks forward to the coming year and will strive to provide appropriate education to physicians and the public. The Chair appreciates the dedication of the Committee members and the Faculty staff.

George Taler MD, Chairperson

Edmund G. Beacham MD
Albert B. Bradley MD
Joseph R. Gladue MD
Herbert Levickas MD
Donald W. Mintzer MD
Paul S. Rhodes MD
Joseph Shear MD
Debra S. Wertheimer MD
Harold B. Bob MD
Paul R. Fleury MD
John F. Hartman MD
Allan H. Macht MD
Daniel S. Pearl MD
Aubrey D. Richardson MD
Gordon M. Smith MD
Joseph W. Zebley MD

Advisory Members
Lois Leonard MD
Steven Levinson MD

Managed Care and Third-Party Liaison

Mr. President and Members of the House of Delegates:

During 1989-1990, the Committee addressed the concerns of Maryland physicians regarding practices and procedures of third-party carriers.

The Committee met with senior executive staff of Blue Cross and Blue Shield to discuss the physician profile system. Reimbursement levels for office visits have been the most frequent complaint since the last profile increase two years ago. The system, however, will be maintained until approximately 1991, then replaced by the Resource-Based Relative Value Scale (RBRVS).

The RBRVS is the outcome of a Harvard study completed for the Health Care Financing Administration (HCFA). It is an index which assigns a numerical value (not monetary) to most of the 7,000 services listed in the CPT-4 (Current Procedure Terminology), based on a variety of factors including time spent with a patient, the intensity associated with providing a service, practice costs, and the opportunity cost of training. It was designed to replace the current Medicare CPR (customary, prevailing, and reasonable) charge system which has been criticized as being inflationary, complex, unpredictable, inequitable, and incorporating inappropriate incentives.

The Committee further recommended that Med Chi develop a monitoring mechanism through which members may inform Med Chi of difficulties encountered with third-party carriers.

Aristides C. Alevizatos MD, Chairperson

Joseph W. Berkow MD
Jay Gerstenblith MD
Perry Hookman MD
David R. Morales MD
Selvin Passen MD
Ruben Reider MD
Arain A. Waseem MD
Stanley Z. Felsenberg MD
Pietr Hitzig MD
Don M. Long MD
Susan W. Owens MD
Lawrence D. Pinkner MD
David M. Solomon MD

Advisory Members
Victor Forman MD
Arthur T. Keefe, Jr. MD
Barry S. Gold MD

Med Chi Insurance Fund

Mr. President and Members of the House of Delegates:

The Insurance Fund Board of Directors met six times and also conferred by several telecom conferences during the year 1989. The Insurance Board governs the Med Chi Agency, the wholly owned subsidiary of the Faculty.

The Agency has been expanded, and has begun to provide more products and services directly, rather than through other brokers. Mr. Ronald Fisher has extensive experience in property and casualty operations. He is in charge of marketing, as well as supervising the entire operation. A new producer has been added to staff; Mr. Louis Joffe has many years experience in property and casualty lines.

Mrs. Katherine Downey has retired after more than 24 years of service with the Med Chi Insurance Fund and the Agency. She has been replaced by Mr. Henry Lingenfelder, who is licensed and experienced in Life Insurance and Disability Plans. He is a welcomed addition to the staff.

The Board approved benefit increases in the Hartford Disability Plan. The surgical schedule was increased from $300 to $500 with no increase in premium rates.

The Blue Cross and Blue Shield coverage was reduced to three options available to the membership. In addition to the traditional plan with Blue Shield Plan C and the Major Medical with the basic plan, a custom comprehensive program was installed with a $1000 deductible and 80/20 copay to $5,000 or $10,000 family stop loss. The rates were increased, but for less than any other association plans.

The Agency is still the number one representative for the Medical Mutual Professional Liability business. In 1989, Med-Mutual reduced the number of agents from 600 to about 40. The Agency has substantially increased the volume of Med-Mutual policy holders, and it will continue to grow in the years ahead.

The Agency had another successful year, and the membership will benefit as a result. The Board is very appreciative of the enthusiastic support of the membership, and will continue to provide high quality, competitively-priced products and services.

Albert M. Antlitz MD, Chairperson

Raymond M. Atkins MD
George S. Malouf, Sr. MD
J. David Nagel MD
Adrian M. Cohen MD
Francis C. Mayle, Jr. MD
Jose M. Yosuico MD



Medical Mutual Liability Insurance was one of the many technical exhibits at this year's meeting.

Medicine and Religion

Mr. President and Members of the House of Delegates:

The Medicine and Religion Committee held four meetings during the past year. Activities included:

a. Sponsoring a Prayer Breakfast during the 1990 Annual Meeting at Turf Valley Hotel and Country Club. The Reverend Ernest R.D. Smart, Pastor of the Second Presbyterian Church, Baltimore, Maryland, gave a stimulating and thought-provoking address entitled "How Long Have You Had This?"

b. Developing a long-range plan to cosponsor a workshop on a bioethical theme with faculty from the University of Maryland's Institute for Philosophy and Public Policy.

Leslie R. Miles, Jr. MD, Chairperson

Merrill I. Berman MD
David W. Fricke MD
Alfred L. Klein MD
Robert J. McAllister MD
Gibson J. Wells MD
Hector L. Feliciano MD
Julia A. Haller MD
Robert E. May MD
Rhodora C. Tumanon MD

Medicolegal

Mr. President and Members of the House of Delegates:

The Medicolegal Committee, sponsored jointly by the Medical and Chirurgical Faculty of Maryland, the Maryland State Bar Association and the Baltimore City Bar Association, has continued its work in bringing the medical and legal professions closer together. The Committee rendered advisory opinions on complaints from both disciplines. Again this year, the Committee organized a Medicolegal Hotline staffed by Committee members for quick resolution of simple disputes.



Medicolegal Committee Co-Chair George H. Greenstein, MD accepts a Certificate of Appreciation from President Raymond M. Atkins, MD for his year of dedicated work.

The Committee also sponsored a program at the May Annual Meeting of the Faculty entitled "AIDS - A Medical and Legal Review and Update for the 1990s." The program was moderated by a member of the Medicolegal Committee, Nancy E. Gregor, Esquire.

The Co-Chairs of the Committee thank the Committee members for their assistance and support during the past year.

George H. Greenstein MD, Co-Chairperson
Augustus F. Brown, IV Esq., Co-Chairperson

Alan V. Abrams MD
Raymond F. Caplan MD
Rafael C. Haciski MD
J. D. Hills MD
Robert E. Martin MD
Rudiger Breitenecker MD
Minda Ancheta-Datoc MD
Murray F. Hammerman MD
Jeffrey S. Janofsky MD
James E. Smith, II MD
Ellen A. Callegary Esq.
Raymond Eugene Dibiagio, Jr. Esq.
Peter Engel Esq.
Bayard Z. Hochberg Esq.
Jonathan Schochor Esq.
Jack C. Tranter Esq.
Nancy Eileen Gregor Esq.
H. Albert Korn Esq.
Jeffrey A. Shane Esq.
Patti Gilman West Esq.

Mental Health

Mr. President and Members of the House of Delegates:

The Committee on Mental Health held six meetings during the past year. Activities included:

a. Submitting articles for publication in the *Maryland Medical Journal.* An ongoing goal of the Committee has been to improve communication and collaboration between psychiatrists and other physicians in Maryland via the column "Today's Psychiatry" in the *Maryland Medical Journal.*

b. Sponsoring the presentation "Movement Disorders in Primary Care and Psychiatry" at Med Chi's 192nd Annual Meeting. The presentation was well received.

The Committee looks forward to a productive 1990-1991 year.

Kenneth L. Malinow MD, Chairperson

Richard H. Anderson MD
Arnold Brenner MD
Jeanne S. Kraus MD
Betty W. Robinson MD
Merrill I. Berman MD
Lino Covi MD
Juki F. Nayeem MD
Edward T. Schnoor MD
Edward L. Suarez-Murias MD
Leonard M. Zullo MD

Music Medicine Clearinghouse Advisory Board

Mr. President and Members of the House of Delegates:

After an eventful first year, the Music Medicine Clearinghouse continued to progress during 1989-90. The Board held only two meetings, but much was accomplished through phone consultations and correspondence.

In June of 1989, the Clearinghouse Coordinator, Susan Harman, attended the Special Libraries Association's annual conference in New York City. During her stay, Ms. Harman visited the Miller Health Care Institute for Performing Artists at St. Luke's/Roosevelt Hospital. She toured their facilities, met staff, and viewed videotapes showing the progress of several patients. Staff member John Kella contributed a large group of reprints to the Clearinghouse.

In August, Ms. Harman attended the Symposium on Medical Problems of Musicians and Dancers in Snowmass, CO., as well as the National Flute Association's (NFA) annual convention in New Orleans. At the NFA meeting she gave a brief talk about the Music Medicine Clearinghouse. A booth in the exhibit hall sponsored by the NFA Dysfunction Committee included the Clearinghouse brochure, bibliographies, and other items. The Clearinghouse received a number of reprints and several research questions as a result of these two meetings.

The September 1989 issue of the *Maryland Medical Journal* included a Library Page entitled "Music Medicine Clearinghouse--Progress Report." Several inquiries from member physicians resulted from this article. A number of local musicians have also contacted the Clearinghouse for assistance in obtaining reprints and information.

In October, Ms. Harman attended a meeting of the International Arts Medicine Association's (IAMA) Information Management Committee in Philadelphia. In March, the IAMA sponsored an arts medicine information management mini-symposium in Philadelphia. Those attending were from various arts therapy and special education fields, as well as performing arts medicine. Ms. Harman gave a short presentation on the Music Medicine Clearinghouse.

A group from the Hogeschool Nijmegen in the Netherlands has developed a music therapy database they are now expanding to other European countries. They would like to create a similar system in the United States and include a section for performing arts medicine. Ms. Harman has agreed to serve on an ad hoc working group to assist in developing the performing arts medicine section of the system.

During the first third of 1990, Ms. Harman completed a chapter on the history of performing arts medicine for a textbook. *Performing Arts Medicine*, edited by Drs. Robert Sataloff, Alice Brandfonbrener, and Richard Lederman, is scheduled for publication in September 1990 by Raven Press. The writing of this chapter brought the Clearinghouse to the attention of several people and organizations who have contributed many reprints to the collection.

On April 20, 1990, Ms. Harman and board member Jeffrey Palmer MD attended a program at the Bennett Institute for Sports Medicine and Rehabilitation at Children's Hospital. The Institute is setting up a performing arts medicine specialty service and wanted to get suggestions from local experts.

In May, the Clearinghouse participated in the Faculty's Annual Meeting, sponsoring a session on "Voice Disorders and Treatment as Concerns the Singer." Speakers were Samuel Lumpkin MD, an otolaryngologist; Sandra Bishop MS, a speech pathologist; and Ruth Drucker, a professional soprano and vocal teacher. All three are active in the local Voice Study Group. The Clearinghouse displayed its revised brochure and various bibliographies, as well as a plaster cast of the hand.

There are already a number of items to be considered for next year. As a result of planning for the Annual Meeting, a number of musicians and a representative from the Maryland State Dental Association have expressed interest in some sort of local mini-symposium. This may be a possibility for Fall 1990.

Music Medicine Clearinghouse Clips is an informal program started after conversations between Ms. Harman and Randall Campora, Players' Committee chairperson of the Baltimore Symphony Orchestra (BSO). The Clearinghouse will provide the BSO with a notebook containing several journal articles or other items related to music medicine to be placed in the players' lounge at the Meyerhoff. The items will be changed at a time interval to be mutually agreed upon. Ms. Harman delivered the first notebook in May.

The Clearinghouse will be listed in the *Directory of Special Libraries and Information Centers* and the *Clearinghouse Directory*, both 1990 publications from Gale Research, Inc. These reference books are bought by many libraries and should result in more publicity for the Clearinghouse. Ms. Harman is scheduled to give a paper on the Clearinghouse at the Special Libraries Association's annual conference in Pittsburgh during June 1990.

The possibility of a national database similar to that now under development in Europe is very exciting. Clearinghouse items could be included along with other information from many sources. In the meantime, the Clearinghouse bibliographies have become very unwieldy computer files. A librarian associated with the IAMA has offered to convert the files to a more suitable software program which would allow subject and date-of-entry access. This will require a large time investment, but nevertheless, must be considered a top priority.

Publicity efforts are still high on the agenda. News of the Clearinghouse is beginning to spread by word of mouth and the Coordinator's attendance at various meetings. However, a more formal publicity effort, directed at medical and music schools, orchestras,

medical and music organizations, medical and music libraries, etc., would result in more recognition.

Christian S. Mass MD, Acting Chairperson

Harold B. Bob MD
John B. DeHoff MD
Jeffrey Palmer MD

Nominations

Mr. President and Members of the House of Delegates:

For presentation to the House of Delegates, Wednesday, May 9, 1990. (Those elected will assume office at the conclusion of the Annual Meeting, 1991, unless otherwise indicated.)

President-elect 1990-1991
President 1991-1992
J. David Nagel MD
Lutherville, *Baltimore County*

First Vice-President 1991
Marvin Schneider MD
Wheaton, *Montgomery County*

Second Vice-President 1991
Bahram Erfan MD
Riverdale, *Prince George's County*

Third Vice-President 1991
Alex Azar MD
Salisbury, *Wicomico County*

Secretary 1991
Harold B. Bob MD
Baltimore, *Baltimore County*

Treasurer 1991
Lawrence H. Fink MD
Laurel, *Montgomery County*

Committee on Scientific Activity 1991-1997
Walker L. Robinson MD (6-yr term)
Baltimore, *Baltimore City*

Finney Fund Committee (5-yr term) 1991-1996
John W. Buckley MD
Towson, *Baltimore County*

Delegates to the AMA
January 1, 1991 - December 31, 1993
Donald T. Lewers MD
Easton, *Talbot County*
January 1, 1990 - December 31, 1993
George S. Malouf MD
Hyattsville, *Prince George's County*

Alternate Delegates to the AMA
January 1, 1991 - December 31, 1993
Henry N. Wagner, Jr. MD
Baltimore, *Baltimore City*
January 1, 1991 - December 31, 1993
J. David Nagel MD
Lutherville, *Baltimore County*
1990 Annual Meeting - December 31, 1992 (Student)
W. David Sullivan
Baltimore, *Baltimore City*

Board of Physician Quality Assurance
(4-year term, 6/30/90 - 6/30/94)
(Faculty Bylaws require that a minimum of twice the number of nominees shall be submitted as there are seats to be filled.)
R. Marshall Ackerman MD (ORS)
Rockville, *Montgomery County*
Victor R. Felipa MD (IM)
Cumberland, *Allegany County*
John T. Lynn MD (ORS)
Upper Marlboro, *Prince George's County*
Francis C. Mayle MD (N)
Bethesda, *Montgomery County*
John F. Strahan MD (D)
Baltimore, *Baltimore County*
Cheryl E. Winchell MD (FP)
Gaithersburg, *Montgomery County*

Michael R. Dobridge MD, Chairperson

Henry P. Laughlin MD, Western District
John C. Seymour MD, Eastern District
Joseph H. Hooper MD, Baltimore City District
Albert L. Blumberg MD, Baltimore County District
Joseph F. Fastow MD, Southern District
Ira N. Brecher MD, Montgomery County District
Suresh C. Gupta MD, Prince George's County District
Vincent D. Fitzpatrick MD, Member-at-Large



Med Chi Past President George S. Malouf, MD (1984) accepts the new Past President's lapel pin from current President Raymond M. Atkins, MD at the Past President's luncheon.

Occupational Health

Mr. President and Members of the House of Delegates:

The Occupational Health Committee met four times during the 1989-1990 year to discuss areas related to occupational medicine.

The Committee continued its effort to obtain data from Workers' Compensation Insurance Carriers which provide information on the treatment of lower back pain. The Committee surveyed seven insurance companies and reviewed the data for possible guidelines for length of treatment for lower back pain.

The Committee also attempted to change regulations in the state code regarding Workers' Compensation, particularly in the areas of approval of treatment in a defined time frame for disputed treatment, and payment from insurance carriers to providers in a defined time frame.

The Committee sponsored a scientific session at the 1990 Annual Meeting of Med Chi on "The Physician As An Employer In The 1990s." Though attendance was limited, those participating showed much interest.

The Committee looks forward to the coming year and will strive to provide appropriate education to physicians and the public. The Chair appreciates the dedication of the Committee members and the Faculty staff.

Michael K. Spodak MD, Chairperson

Timothy D. Baker MD
James Frenkil MD
Roman A. Goy MD
James P. Keogh MD
John T. Lord MD
Emmanuel M. Maniago MD
Christian S. Mass MD
Michael D. Potash MD
Henry S. Sabatier MD
George W. Settle MD
Norman J. Cowen MD
Georgina Y. Goodwin MD
Thomas E. Hobbins MD
Kenneth R. Lippman MD
Ferdinand G. Mainolfi MD
Robert L. Marcus MD
James R. Nethercott MD
Norman B. Rosen MD
Henry M. Scagliola MD
Edwin W. Whiteford MD



Physicians visiting the technical exhibits stop to ask questions and request additional information about many programs and services.

Peer Review

Mr. President and Members of the House of Delegates:

During this past year the Peer Review Committee has met on a monthly basis. Committee members have devoted a great deal of time and effort to reviewing medical records, conducting site visits at physician offices, interviewing physicians during Committee meetings, and preparing detailed written reports of their peer review activities. The work of this Committee is reflected in the following statistics:

Cases referred by the Board of Physician Quality Assurance (BPQA)	97
Site visits	22
Medical record reviews	57
Completed reports to the BPQA	41

These figures do not include multiple cases which were referred to various component societies, specialty societies, and the Physician/Patient and Drug Committees of Med Chi.

This was the first year during which the review process followed the guidelines delineated in the newly developed *Peer Review Handbook for Maryland.*

Interested individuals in all specialties are encouraged to volunteer for peer review activities. Increased physician participation and involvement is needed at the local and state levels, as well as in specialty societies, in order to maintain the high standard of medical care in Maryland.

The Chairman wishes to express his gratitude to all Committee members for the long hours spent in Committee activities, to the various specialty consultants for their timely and expert opinions, and to Med Chi staff for their support and assistance.

Pablo E. Dibos MD, Chairperson

Lewis M. Burdette MD
Augusto R. DeLeon MD
William N. Fitzpatrick MD
Charles F. Hobelmann, Jr. MD
A. Clark Holmes MD
James W. Karesh MD
Robert E. Martin MD
Stanley L. Minken MD
Sidney B. Seidman MD
Susan T. Strahan MD
Richard L. Wolfe MD
David M. Cook MD
Liebe S. Diamond MD
John G. Frizzera MD
Victor R. Hrehorovich MD
Charles W. Kinzer MD
Eugene R. McNinch MD
Jerome P. Reichmister MD
Bernard R. Shochet MD
Larry G. Tilley MD
Herbert L. Yousem MD

Peer Review Management

Mr. President and Members of the House of Delegates:

The Peer Review Management Committee (PRMC) was established in June 1989 to be the oversight committee for the peer review process, as specified in the newly-developed *Peer Review Handbook*. Regular monthly meetings were held beginning in June. To fulfill its responsibilities, the newly-formed Committee is to perform the following duties:

1. Receive and record cases referred by the Board of Physician Quality Assurance (BPQA).
2. Identify the guidelines to be used in conducting the review.
3. Refer the case to the appropriate medical review committee.
4. Develop and maintain a monitoring procedure allowing the immediate determination of the status of any peer review complaint to ensure that the review is done in a timely manner.
5. Review reports received from investigating committees to determine their adequacy.
6. In the event a report is found to be inadequate, specifically identify the inadequacies in writing and return the report to the appropriate medical review committee.
7. When a report is adequate, transmit it to the BPQA.
8. When a final disposition report is received from the BPQA, forward a copy of it to the appropriate medical review committee.
9. Identify areas in which medical review committees need education and arrange to have the necessary education provided.
10. Provide organizational assistance to any medical review committee in Maryland, and poll components annually to determine the existence of medical review committees.
11. Periodically meet with the BPQA to decide what kinds of statistical information will be needed by the BPQA, the Faculty, and the component societies in evaluating and upgrading the review process.

The first priority of the Committee was the development of the *Peer Review Handbook*, a prototype that has already evoked the interest of groups in many other states. The *Handbook* has been approved and is now being distributed.

For the coming year, the Committee's focus will be on education. The first concern will be to assist all reviewing groups in Maryland to implement the guidelines described in the *Handbook*.

A second educational concern of this Committee is the fact that very limited options are given to the BPQA under the present system. The BPQA may take punitive action against the license of the physician under review or it may take no action at all. While some specific office practices may be found to be substandard, the overall practice may be of such quality that it is inappropriate to take action against the physician's license. However, the BPQA cannot insist upon any type of re-education unless action is taken against the physician's license. Often recommendations are made for re-review in the near future in the hope that improvement will have occurred. Subsequent reviews may not reveal marked differences from the initial review.

To maximize the value of the peer review process, the Committee recognized that a more ideal system would be to combine the information gathered in the peer review process regarding the deficiencies of a practice with a second phase of educational alternatives which would enable the physician to improve his/her practice habits. Thus, an educational subcommittee was created, under the Chairmanship of Ronald J. Cohen MD, to develop an educational program prototype. An initial plan has been completed for this project, and development will continue in the coming year.

The Chairman thanks every Committee member for the effort and support which has enabled this Committee to make a valuable contribution to the efficacy of the entire peer review process.

Christopher M. Harvey MD, Chairperson
Ronald J. Cohen MD, Vice Chairperson

Emidio A. Bianco MD
Jesse M. Hellman MD
David S. McHold MD
Jose M. Yosuico MD
Karakat S. Gokulanathan MD
Francis C. Mayle, Jr. MD
Karl H. Weaver MD

Physician/Patient Relations

Mr. President and Members of the House of Delegates:

The Physician/Patient Relations Committee has been very successful this past year in investigating complaints involving the standard of medical care, including Health Claims Arbitration cases and fee disputes. Cases are referred to this Committee from the Board of Physician Quality Assurance (BPQA).

After a professional expert in the particular field of medicine has examined the case completely, the Committee considers all the pertinent facts brought out in the investigation. After this deliberation, a recommendation is made and forwarded to the BPQA for a final decision.

The Physician/Patient Relations Committee prides itself on complete and fair investigations regarding the practice of medicine and related issues. This procedure opens the line of communication which supports and enhances the physician/patient relationship.

Committee members and staff are dedicated to the peer review process and are anxious to continue its enhancement for the improvement of the profession.

The Chairperson expresses her appreciation to all the Committee members and staff for their continued support of this process.

Lois E. Wehren MD, Chairperson
B. Martin Middleton MD, Vice Chairperson

Lionel A. Desbordes MD
Mary B. Gorman MD
Joseph H. Hooper MD
Thomas E. Hunt MD
Robert A. Liss MD
Albert Nahum MD
Lex B. Smith MD
James G. Zimmerly MD
Jack D. Francis MD
Gay M. Guzinski MD
Norris L. Horwitz MD
Danilo G. Lee MD
Raymundo S. Magno MD
Benjamin Rothfeld MD
W. Haddox Sothoron MD

advocate
ˈad-və-kət-, kāt\n
1: one that pleads the cause of another; specif: one that pleads the cause of another before a tribunal or judicial court 2: one that defends or maintains a cause or proposal

THE MEDICAL AND CHIRURGICAL FACULTY-*Physician Rehabilitation Committee*
The very definition of **ADVOCATE**

The Committee, in addition to being **CONFIDENTIAL** and **NONDISCIPLINARY**, acts as an advocate for physicians utilizing, in a cooperative atmosphere, the services of the Committee.

Areas of advocacy include matters of licensure, credentialing, and employment. Addiction, Marital/Family conflicts, Psychiatric Illness, Organic Impairment, Physical Handicap... If these are some of the problems, we can help you find the solutions

In Maryland the Physician Rehabilitation Committee of MED-CHI is available to all physicians, and their families.
The Committee is NONDISCIPLINARY and information is kept CONFIDENTIAL.
If you, a colleague, or family member is in need of our services call:
(301)539-0872
In Maryland 1-800-492-1056
Message line (301)727-0120 24 hours a day, 7 days a week, leave a message

Medical and Chirurgical Faculty of Maryland

Physician Rehabilitation Committee

HELPING IS OUR BUSINESS...If you wish to help further the work of the Committee through a tax deductible donation send to: The Medical and Chirurgical Faculty Charitable/Educational Foundation, 1211 Cathedral St. Baltimore, Maryland 21201
Please note on your donation: "Physician Rehab"

Physician Rehabilitation

Mr. President and Members of the House of Delegates:

The Committee on Physician Rehabilitation has continued to expand its umbrella of advocacy by increasing the number of cases, enhancing services and improving the loan program.

During the past year, we have been in the process of upgrading and expanding the marketing strategies for the Committee. Since January 1989, the services of the Committee have been advertised in the *MMJ* each month. The November 1990 issue of the *MMJ* will be dedicated to the activities of the Committee; members of which are in the process of planning articles on impaired physicians. Other means of "getting the message out" continue to be explored and will be implemented as they become available.

The Committee has developed a pamphlet, *To Disclose or Not To Disclose*, as official Med Chi Physician Rehabilitation Program literature. The pamphlet will assist physicians in the Physician Rehabilitation Program when dealing with patients and colleagues regarding this sensitive issue. It will be distributed to participants in the Program and to other interested parties. Currently the Committee is in the process of developing another pamphlet, *Professional Treatment Never Includes Sex.*

Also developed, under an agreement with the Board of Physician Quality Assurance, was a telephone protocol for Committee members and staff. The guidelines in the protocol enable the person receiving an incoming call about an allegedly impaired physician, to make clear all the options which are available to the person making the referral.

In the past year, the Committee has developed and implemented a new expanded contract format for physicians under the advocacy of the Committee. It is used as a foundation when designing an individualized contract. All contracts are tailor-made according to individual needs and requirements in an effort to increase monitoring to allow maximal advocacy.

The Committee and staff are now using new letterhead designed for the Committee. It displays the Committee logo and announces the message line telephone number.

Cosponsored with Med Chi's Auxiliary was a raffle for a Bermuda vacation. The drawing for the vacation was held at Med Chi's 192nd Annual Meeting. A portion of the proceeds from the raffle will benefit the Physician Rehabilitation Program. The Committee also sponsored two educational programs at the Annual Meeting. Committee member, Robert M. Marine MD, spoke on "The Medical Aspects of Addiction" and Committee member, Edward J. Kowalewski MD, spoke on "Physician Character and Personality Traits That Predict Less Than Adequate Practice Standards."

The Committee loan program continues to improve and bad debt decrease as accounts receivable have increased. In April 1990, the Executive Committee voted to excuse $22,421.20 of bad debt as uncollectible since these loans were to persons who are now deceased, bankrupt or unable to pay due to disability. During the 1989-1990 Committee year, $10,080.15 in payments was received. Members developed a written protocol for physicians seeking financial aid from the Committee for the purpose of treatment.

Within the next year we look forward to utilizing a database to store information about the physicians under our advocacy. The Committee is also planning to develop a computerized billing system or the Committee loan program. In addition, the computer will be used to assist in tabulating statistics, enabling even better access to information for the purpose of program evaluation and communication.

The Physician Rehabilitation Program expects to grow and be of assistance to more physicians than ever, thanks to the passage of Senate Bill 138. This bill allows for funds from physician license renewal fees to be dedicated to the Physician Rehabilitation Program.

The Committee wishes to express its warmest sympathies to the colleagues, friends and families of Robert M. Ollodart MD, and Mauricio I. Zeplo MD, two valued Committee members who passed away in 1989. They have been and will continue to be sorely missed.

The Chairman wishes to express his regard for and appreciation to the hardworking and dedicated members of this Committee who continue to give unselfishly of their time to the important work of this Committee.

Stanley R. Platman MD, Chairperson

William E. Abramson MD
Richard H. Anderson MD
Juan G. Gan MD
Robert S. Goodwin MD
Donald Harting MD
Robert R. Kent MD
Edward J. Kowalewski MD
Robert M. Marine MD
Patricia A. McIntyre MD
Edson B. Moody MD
Richard H. Schlottman MD
Maxwell N. Weisman MD
Curtis Wright MD
Frederick P. Alpern MD
Morris Z. Effron MD
Georgina Y. Goodwin MD
Cyril G. Hardy MD
Beada Hill MD
Ramesh K. Khurana MD
Virginia Levickas
Dan H. McDougal MD
Donald C. Meek MD
Claro L. PioRoda MD
Edward T. Schnoor MD
Raymond A. Wertheim MD

Policy and Planning

Mr. President and Members of the House of Delegates:

During the 1989-1990 operational year, the Policy and Planning Committee held two meetings. On July 12, 1989, the Committee proposed two issues for review and consideration with a subsequent report to the Faculty Council.

The issues recommended for review were:

1. The development of a Med Chi philosophy that would consider current and future socioeconomic factors impinging on the environment of medicine.
2. Improvement in communication among the membership, the House of Delegates, and the Med Chi Council.

To accomplish this review, the Committee organized itself into subcommittees to address each issue. Each subcommittee was to meet at the call of its Chairman and to report on the outlined goals when the full Committee met on August 16, 1989.

At the August meeting, Subcommittee A, which reported on "Improved Communications," proposed the following recommendations which were passed by the full Committee:

1. Minutes of Council, including the written Committee reports presented to Council, be sent to all Component Presidents and Executive Directors, and Council actions be clearly identified in the *MMJ*.
2. All pertinent available information related to the AMA (legislation, etc.) be dispatched as soon as possible to all Presidents and Executive Directors.
3. Current Med Chi procedure (i.e., Med Chi Presidents seek the advice of presidents of component societies in appointment of committee members) is acceptable and should continue.
4. The President-Elect should seek all possible input, including that of the components in the selection of committee appointments, so that appointments can be made in a timely fashion upon inauguration.
5. The preparation of a policy handbook should be investigated and a dollar amount determined for its development.

Subcommittee B, which reported on the "Development of a Med Chi Philosophy," proposed the following recommendations which were passed by the full Committee:

1. Formulation of an ad hoc committee to reach out to specific groups and target them for membership. The groups to be so targeted are: (a) academic MDs; (b) managed care and corporate medicine MDs (both full- and part-time); (c) female MDs; and (d) FMG MDs.
2. Consideration by Council, after a cost evaluation, of the hiring of an independent marketing company to survey the targeted groups to determine marketable membership strategies.
3. Direction by Council to the Student and Resident Societies to recruit new members. Involvement of the Deans of the medical schools in assisting with membership recruitment.
4. Creation by Council of an organized method, on a one-to-one basis, to re-recruit physicians who have left membership, and a procedure to insure that no further decline in membership occurs. It was further recommended that Council form an ad hoc membership committee comprised of component membership committee members. This ad hoc committee would establish guidelines for membership, as well as review the Bylaws for possible changes affecting membership.
5. Consideration by Council that the Bylaws Committee be requested to consider an attendance requirement for all Council members and possibly for all standing committee members.

The Committee had planned a meeting for January 31, 1990 but was unable to convene and the meeting was cancelled. The proposed agenda subject had been "Med Chi Trade vs Professional Organization."

Executive Committee

Raymond M. Atkins MD
Michael R. Dobridge MD
J. David Nagel MD
Jose M. Yosuico MD
Harold B. Bob MD
Reynaldo L. Lee-Llacer MD
Hiroshi Nakazawa MD

Council Members

Albert M. Autlitz MD, Chairperson

Louis C. Breschi MD
George S. Malouf MD
Susan R. Guarnieri MD
Joseph Snyder MD

Members-at-Large

Albert L. Blumberg MD
Luke E. Terry, Jr. MD
John F. Kressler MD



Special Guest Lecturer Victor A. McKusick, MD describes his studies in Genetics at The Johns Hopkins University.

Professional Ethics

Mr. President and Members of the House of Delegates:

The members of the Committee on Professional Ethics have been active in a variety of ways this past year in helping to educate the medical community about the ethical responsibilities pertaining to physicians, other healthcare practitioners, and the public.

During this past year, the Committee has revised ethical opinions related to termination of the physician/patient relationship, pronouncement of death, and laboratory referrals. Additionally, the Committee developed a new ethical opinion on the responsibility of physicians to patients under contractual agreements.

The Committee has been involved in updating the 1984 *Compendium of Laws, Regulations, Opinions and Policies Governing the Practice of Medicine in Maryland.* Final approval by the Attorney General was granted in late April and distribution is expected in June. The *Compendium* will be presented in a format allowing for supplemental updates.

The Committee is currently developing an ethical position regarding euthanasia. Although much discussion is expected, Committee members agree that the issue should be addressed since the AMA has taken a position.

The Committee sponsored an educational program at the Faculty's Annual Meeting in May on "The Physician as Gatekeeper - A Professional Contradiction." The purpose of the panel was to discuss the responsibilities and ethical dilemmas faced by a physician in an HMO setting.

The Chairman would like to express his thanks to the members of this Committee who have devoted countless hours to the important work of this Committee.

Louis C. Breschi MD, Chairperson

Edilberto Beltran MD
Jack C. Childers, Jr. MD
Deogracias V. Faustino MD
Stephen N. Jones MD
Leslie R. Miles, Jr. MD
Vincent O. Casibang MD
Albert H. Dudley III, MD
Eugene Guazzo MD
Don M. Long MD
Benjamin Rothfeld MD

Professional Review Organization Monitoring

Mr. President and Members of the House of Delegates:

The PRO Monitoring Committee exercised its responsibilities by maintaining close liaison with the federally designated Professional Review Organization, the Delmarva Foundation for Medical Care, Inc. Faculty members must clearly understand that Med Chi has no review power nor legal authority over the PRO, but does maintain a good working relationship with the Delmarva Foundation.

The Med Chi PRO Monitoring Committee met several times during this past year. The PRO began its third scope of work which has emphasized quality rather than utilization issues. The Committee had several discussions with Delmarva concerning physician notification in the State. It is our feeling that it is Delmarva's, and not Med Chi's responsibility, to notify Maryland physicians about new procedures or policy changes of the PRO.

During this year Delmarva set up a "peer review advisory committee" consisting of representatives from Delmarva, Med Chi, the Maryland Hospital Association, the Division of Licensing and Certification, the Health Facilities Association, and the Medical Assistance Program. We are aware of only one meeting that took place this past year.

The issue of confidentiality has once again been raised; especially with regard to psychiatric records. The Committee has been reassured by Delmarva that it does have adequate protection of the records from a confidentiality point of view. Delmarva has produced an information pamphlet for physicians dealing with its policies and procedures. The Committee felt that the information contained was appropriate and useful for practicing physicians in Maryland.

During this year, our Committee also reviewed the medical records of several patients sent by physicians who have complained about actions taken by Delmarva. Committee members reviewed the charts and then responded to the physicians concerning the appropriateness of Delmarva's actions. There have been discussions in our Committee and at Council about complaints from physicians dealing with the quality of the letters they are receiving. Many are apparently inappropriate. We have notified utilization review offices in Maryland hospitals to attempt to gather information about these questionable Delmarva letters. We would like to know how many such letters they are sending out.

The Medical Society has also gone on record this year as being strongly opposed to the office-based review of physicians that Medicare is instituting in several states.

John A. Singer MD, Chairperson

Peter E. Dans MD
Marion Friedman MD
Elsa M. Goris MD
Vernon M. Gelhaus MD
Alfonso H. Janoski MD
John B. MacGibbon MD
Julian W. Reed MD
Richard T. Scholz MD
Karl H. Weaver MD
Augusto R. DeLeon MD
David B. Glasser MD
Christopher D. Hogan MD
Roland Imperial MD
Jeffrey E. Kremen MD
Karl F. Mech, Jr. MD
Humberto A. Rossi MD
Paul D. Sullivan MD
Frederick Wilhelm MD

Public Health

Mr. President and Members of the House of Delegates:

During the 1989-1990 year, the Committee on Public Health continued to exercise its charge to review Med Chi's existing committee structure as it relates to public health and to develop recommendations to improve Med Chi's effectiveness in managing public health issues.

This year, the Committee was, to a large extent, concerned with the development of two white papers on "Cholesterol Testing" and "Problems of the Uninsured." These subjects were considered on August 7, 1989 by the Committee, and subsequently expanded by ad hoc members. In addition, the report of an ad hoc committee of the Faculty Council on "Employee Health Insurance Coverage" was presented. Dr. Ted Lewers, a member of the AMA Subcommittee on the Uninsured, added his expertise to our final formulation.

The white paper, "Problems of the Uninsured," was presented by Dr. Herman Maganzini at Med Chi's Semiannual Meeting on September 1, 1989. On November 1, 1989, the Chairman participated in a panel, "Medically Uninsured: Health Coverage Initiatives for the 1990s," at the Ninth Annual Maryland Convocation. The co-panelists were Dr. Lonnie Bristow (AMA Trustee) and the Honorable Donna M. Felling (State Delegate).

Both white papers were published in the January 1990 issue of the *Maryland Medical Journal.*

Final bylaw changes concerning this Committee were passed at the Semiannual Meeting. These defined a "Liaison Committee with the Medical Assistance Program" to deal with the Department of Health on all matters pertaining to the Medical Assistance program. The Committee on Public Health, with its four subcommittees (Child & Adolescent Health and Welfare; Immunology and Infectious Diseases; Maternal Health and Welfare; Sports Medicine), was charged with all other interactions with local, state and federal agencies, as well as any other interested parties.

On December 6, 1989, the Committee met with physicians from East Baltimore concerning their problems with the Municipal Health Services Program. Recommendations were made to Council and the Baltimore City Medical Society.

Also in December, the Committee became involved with hearings of the Maryland Health Resources Planning Commission pertaining to cardiac surgery and therapeutic catheterization in certain Baltimore City hospitals. We were able to establish contact between the Maryland Society of Cardiology and certain members of the Technical Advisory Group (TAG) which had presented recommendations to the Commission.

Many other questions were referred to this Committee by physicians, other committees and Council, and all were either referred to appropriate subcommittees or considered, and action taken.

On March 17, 1990, the Chairman moderated a symposium on "Child Abuse" sponsored jointly by Medical Mutual and Med Chi.

Our final meeting of this year was March 12, 1990 at which we considered the problem of an application to the FDA to allow advertising of prescription drugs on television. While investigating the problem, we were informed by the FDA that because of ongoing objections the application was withdrawn. Finally the "Health Access America" initiative of the AMA was considered. This Committee will coordinate this effort in Maryland.

Herman C. Maganzini MD, Chairperson

Robert J. Ancona MD
Joyce M. Boyd MD
George E. Demetrakopoulos MD
Harrold T. Elberfeld MD
Ronald L. Gutberlet MD
Wayne B. Leadbetter MD
Hilary T. O'Herlihy MD
Marcel E. Salive MD
Annelies S. Zachary MD
William A. Anderson MD
John B. DeHoff MD
Vincent D. Fitzpatrick MD
John M. Krager MD
Janet W. Nelson MD
J. Courtland Robinson MD
Michael A. Sauri MD

Public Relations

Mr. President and Members of the House of Delegates:

The Public Relations Committee began its 1989-1990 session by proposing an amendment to the Committee's Bylaws that would include "enhancing the image of the physician" as a primary function of the Committee. Throughout the rest of the year, the Committee initiated several new programs in an effort to achieve this goal.

To improve the physician's image in the eyes of the public, one of the Committee's first projects was to encourage proactive media relations. The Committee actively supported President Dr. Raymond M. Atkins' "white paper" project and proposed a plan to publicize the Faculty's position on key legislative issues to the media. Although only Med Chi's President can act as the official spokesperson for Faculty Positions, the Committee helped publicize Med Chi's position on important legislative issues such as Triplicate Prescriptions.

On the national level, before Expenditure Targets (ETs) had become a significant issue in Congress, the Public Relations Committee was charged with informing Maryland physicians about this potential threat to the availability of healthcare for senior citizens. The campaign to defeat this legislation had three primary goals: 1) To persuade all Maryland U.S. representatives to oppose ETs; 2) To inform all Med Chi members about ETs and encourage physicians to contact their congressmen; and, 3) To inform senior citizens in Maryland about ETs and encourage them to contact their congressmen. The Committee's extensive awareness campaign spanned four months and

included several letters to Maryland representatives, five informational flyers for physicians, and letters to all Maryland senior centers. Thanks to the outstanding cooperation of Med Chi's Component Societies and the Auxiliary, Representatives C. Thomas McMillen and Constance A. Morrella took positions opposing ETs. As a result of this support, the ETs proposal was defeated.

Following this defeat, the Committee surveyed Med Chi's House of Delegates on the effectiveness of the ETs campaign which showed that 97 percent of the Delegates surveyed rated the Committee's job as good to excellent in informing the membership about ETs.

The results of the ETs survey showed the Committee that the *Maryland Medical Journal* (*MMJ*) is an excellent source for Med Chi news and information. To promote the *MMJ* to the membership, the Committee created several informational flyers that were distributed at the Med Chi Annual Meeting in May.

During the Annual Meeting, the Committee presented a session on "Practical Techniques for Promoting Your Medical Practice," to teach physicians ways to build and maintain their patient base, enhance their practice and develop long-term plan goals. In addition to this session, Committee members cooperated to produce "Patient Relations: A Prescription for Good Service," a slideshow designed to remind physicians of basic patient relations techniques that will help improve physician/patient relationships.

In addition to its new projects, the Committee continued producing two radio programs for Med Chi physicians. "Consultation, with John Stupak," Med Chi's nationally aired call-in show, is now heard on over 30 radio stations across the country. Subjects discussed on the national program include AIDS, Nutrition, Cancer, Sports Medicine and Headaches. In addition, a local version of "Consultation" continues to air on WBAL-AM radio on Sunday mornings at 7:00 a.m..

In an effort to encourage speakers to participate in the radio programs and to persuade physicians to speak to public groups, the Committee ran monthly advertisements for "Consultation" and for Med Chi's Speaker's Bureau in the *MMJ*. Over 45 physicians currently participate in the Speaker's Bureau and help Med Chi respond to requests from the public and the media for information on their specialty or topic.

The Committee also continued all of its awards programs including the Med Chi First Annual Award for Excellence in Organized Medicine. The award was created to encourage medical students' involvement in organized medicine and to increase Med Chi's visibility at Maryland's medical schools. The award, which recognizes the contributions Maryland medical students make to organized medicine, was presented to Jay W. Floyd, a senior at the University of Maryland.

The Public Relations Committee also sponsored the Tenth Annual Photo Contest. Faculty and Auxiliary members entered over 20 photos which were judged by J. Preston Birckner, a professional freelance photographer from Baltimore. Winners were announced during the House of Delegates Session of the Annual Meeting. A. Harry Oleynick MD won first and second place, and David A. Paul MD won third place. All entries in the photo contest were on display during the Annual Meeting.

Certificates of Recognition were presented during the House of Delegates Session of the Annual Meeting to three physicians for their outstanding service and dedication as chairmen of Med Chi committees. President Raymond M. Atkins MD presented certificates to Victor R. Hrehorovich MD, Chairman of the Committee on Hospital Medical Staffs; Louis C. Breschi MD, Chairman of the Committee on Professional Ethics; and Herman C. Maganzini, Chairman of the Committee on Public Health.

Wayne C. Spiggle MD, winner of the A.H. Robins Award for Community Service, also was announced during the Annual Meeting.

The Public Relations Committee's goal is to create the best possible image for Maryland physicians in the eyes of the public. The Committee welcomes comments and suggestions from Med Chi members regarding its activities. As Chairman, I thank the members of my Committee whose time and effort have made this a productive year.

William A. Cassidy MD, Chairperson

K. G. Dritsas MD
Rafael C. Haciski MD
Thomas F. Krajewski MD
Gary W. Pushkin MD
Gholam R. Sadjadi MD
Maura Smith MD
Fred Magaziner DDS
Vincent D. Fitzpatrick MD
F. Christian Hansen III MD
Hiroshi Nakazawa MD
Ibrahim A. Razzak MD
Kirkor Sekercan MD
Mrs. Jackie Chang



West Virginia Medical Society President Constantine Amores, MD (l), Zorayda Lee-Llacer, MD (c) and Reynaldo Lee-Llacer, MD (r) were among the attendees at the Past President's luncheon.

Scientific Activity

Mr. President and Members of the House of Delegates:

The Committee's deliberations this year have included numerous items and events.

A revised policy regarding cosponsorship applications was developed by the Committee and submitted to Council for approval. At the November meeting, Council approved the recommendations and the Committee has implemented the policy with all applications for cosponsorship.

The 1989 Semiannual Meeting was held at the Sheraton Ocean City Resort & Conference Center, September 14-16, 1989. The more than 125 registrants were able to select from 17 scientific programs which covered a full range of topics of current interest to our membership.

The 1990 Annual Meeting was held at the Turf Valley Hotel and Country Club in Ellicott City, May 9-11, 1990. Highlights of the program included a plenary lecture on "Healthcare Financing: An American Solution," by AMA Trustee Lonnie Bristow MD. A Theme Symposium was moderated by Donld T. Lewers MD. Outstanding speakers included Thomas Reardon MD, Commissioner from the Physician Payment Review Commission, addressing the topic of "Physician Payment, Potential Changes: Issues and Answers." Palma Formica MD spoke on "Long-Range Plans and Expectations." AMA experts, Ross Rubin Esq., John Seward MD and John Zapp DDS, gave detailed presentations on critical issues pertaining to "Legislative Affairs," and Congressman Benjamin L. Cardin (D-MD) addressed the topic "Federal Legislative Issues in the 1990s."

The Capstone Lecture was presented on Friday by Victor A. McKusick MD, Professor of Medical Genetics, Johns Hopkins University School of Medicine. Dr. McKusick addressed an audience of well over 150 on the topic of mapping genes on chromosomes and the Human Genome Project.

Over 600 physicians attended the 192nd Annual Meeting. A total of 41 scientific sessions were presented and afforded registered physicians an opportunity to earn up to 12.5 hours of Category One CME credit.

The next Annual Meeting is scheduled to be held at the University of Maryland Conference Center, College Park, Maryland, on May 8-10, 1991.

The Committee on Scientific Activity wishes to express its deep appreciation to all those who contributed to making this year's programs, meetings and activities so successful and worthwhile.

Jack M. Zimmerman MD, Chairperson

Benjamin V. DelCarmen MD *Ernest E. Harmon* MD
Victor R. Hrehorovich MD *J. Richard Lilly* MD
Jose Martinez MD
Ralph A. Tyksinski, Director, Education and Meeting Management

Small Area Practice Variation

Mr. President and Members of the House of Delegates:

The Committee on Small Area Practice Variation met three times since our last report. Issues brought to the Committee's attention are as follows:

Dr. Arthur Keefe presented the initiatives being taken by Blue Cross and Blue Shield to explain small area practice variations. Dr. Harrold Elberfeld, Chairman of the Med Chi Subcommittee on Maternal Welfare, discussed the efforts of our Committee and the Maryland Hospital Association to explain variations in C-section rates and modify them where appropriate. Dr. Elberfeld and his Subcommittee are following up by working with local obstetricians.

Dr. Thomas Gadacz reported on his research into variations in Carotid Endarterectomy and proposed that we work on this next year.

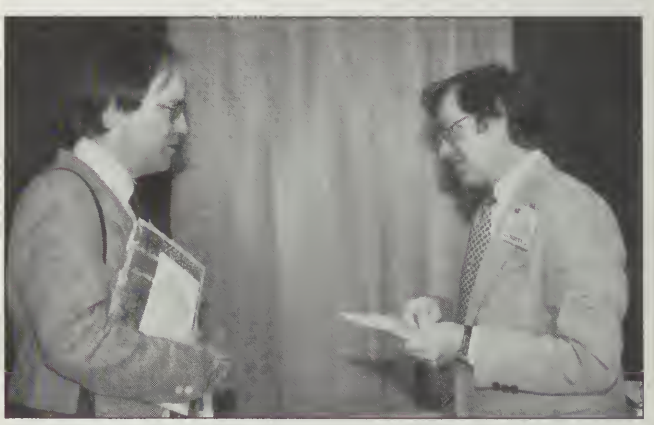
Dr. H. Logan Holtgrewe discussed the American Urologic Association's national initiative to explain and modify variations in prostatectomy rates.

In addition, Drs. Vahe Kazandjian, Leonard Scherlis, and Peter Dans published an article in the *Maryland Medical Journal* to educate physicians on the subject of small area practice variations.

As was done last year, a panel presentation was held at the Annual Meeting to acquaint physicians further with public policy implications of small area practice variations.

Peter E. Dans MD, Chairperson

Alex Azar MD
Paul Burgan MD
James C. Gieske MD
Frank G. Kuehn MD
David R. Morales MD
Ajaib S. Sidhu MD
Raymond A. Wittstadt MD
Timothy D. Baker MD
Ali Daneshvar MD
Harry R. Katz MD
John O. Meyerhoff MD
Leonard Scherlis MD
Aroon Suansilppongse MD



Joseph Jensen (r), Acting Executive Director for Healthcare Credentials Verification, Inc. explains the benefits of his service to an Annual Meeting registrant.

Specialist Identification

Mr. President and Members of the House of Delegates:

The Committee on Specialist Identification met six times during the past year to carry out its function as the reviewing body for the Board of Physician Quality Assurance (BPQA) in the area of Specialist Identification. During this past year, 309 applications were evaluated by the Committee with recommendations to the Board of Physician Quality Assurance.

Application for specialty designation is legally required for all licensed physicians in Maryland. If a physician is certified by the American Board of Medical Specialists, the identification is automatically given by the Board upon confirmation of that credential. If not certified by the American Board of Medical Specialists, the physician must complete an application outlining specific training and experience in the requested specialty.

Each application is reviewed thoroughly, fairly, and in compliance with established criteria. Liaison is maintained with the Board of Physician Quality Assurance members John Lynn MD and Claude Hill MD, who represent the Board for Specialist Identification.

On behalf of the Committee on Specialist Identification, I extend my appreciation to each member for his or her valuable time and effort in this very important activity.

Joseph I. Berman MD, Chairperson

Aristides C. Alevizatos MD
Samuel D. Friedel MD
Daniel T. McCrone MD
Hiroshi Nakazawa MD
David P. Zajano MD
Willarda V. Edwards MD
Donald W. Kress MD
B. Martin Middleton MD
Jose M. Yosuico MD



(l to r) Reynaldo L. Lee-Llacer, MD, Plenary Speaker Lonnie Bristow, MD, Donald T. Lewers, MD and Raymond M. Atkins, MD have their picture taken following the Plenary Session on Wednesday afternoon.

Specialty Societies

Mr. President and Members of the House of Delegates:

The Committee on Specialty Societies is dedicated to the review of issues concerning interdisciplinary and multidisciplinary problem areas of medical practice as they relate to each specialty. The Committee provides specialty representation on the Faculty Council and House of Delegates.

This Committee, originally formed as an ad hoc committee, conducted its first meeting on August 31, 1989. At that meeting, the Committee reviewed its charge and the manner in which representation on the Committee was determined. The Committee discussed specialty society involvement with peer review and with legislative issues, and a member was selected to represent the Committee on the Faculty Council.

At its second meeting on October 26, 1989, the Committee selected six of its members to represent the Committee on the House of Delegates. The Committee again discussed peer review activity and policy at each specialty society, and asked the specialty societies to identify contact persons for peer review.

During its January meeting, at which the Committee appointed a seventh Delegate and four Alternate Delegates to the House of Delegates, the Committee's value to the Faculty, Specialty Societies, and the practice of medicine became clearly evident. The Committee became actively involved in deliberations with the Medicare Medical Director and provided recommendations concerning proposed revisions of Medicare policies for the reimbursement of GI endoscopies and non-invasive vascular testing. The Committee's recommendations were enthusiastically accepted by the Medicare Medical Director.

At the Committee meeting of March 22, 1990, the Committee reviewed its input to the revisions of Medicare policies related to GI endoscopies and non-invasive vascular testing. The Committee also became involved in the issue of psychiatric managed care and utilization review which the Task Force on Psychiatric Managed Care has been evaluating for the purpose of providing appropriate psychiatric utilization review guidelines.

Louis C. Breschi MD, Chairperson

Rudiger Breitenecker MD
Enzo Cosentino MD
David B.K. Golden MD
Jesse M. Hellman MD
Charles Hobelmann, Jr. MD
William R. Lealty MD
Marc Lowen MD
Martin B. Middleton MD
David C. Moses MD
David B. Posner MD
Allan P. Weksberg MD
Rosemary H. Bonsack MD
Jay Gerstenblith MD
Roman A. Goy M
Robert Hennessy MD
Peter A. Holt MD
Kenneth B. Lewis MD
Paul N. Manson MD
Dean L. Mondell MD
Lawrence C. Pakula MD
David M. Wanicur MD

Women in Medicine Ad Hoc

Mr. President and Members of the House of Delegates:

Med Chi formed the Ad Hoc Committee on Women in Medicine in January 1989 to study the professional and personal goals of women physicians and to develop programs to improve opportunities for women in medicine to attain these goals.

At present, the primary goal of this Committee is to increase women's membership in Med Chi and encourage women physicians to become actively involved in organized medicine at all levels (county, state, and national). In April 1989, the House of Delegates passed a resolution that Med Chi "actively recruit women members" and the Faculty "encourage women to actively participate in organized medicine through increased committee and other leadership involvement." To help carry out this resolution, the Committee sponsored two receptions for women physicians, during the Semiannual Meeting in September 1989 and during the Annual Meeting in May 1990. These receptions are intended to encourage nonmember women physicians in Maryland to participate in organized medicine.

In September 1990, the Committee will participate in the AMA's "Women In Medicine Month" by inviting nonmember women physicians to the Faculty to discuss problems unique to women physicians and to determine ways organized medicine can help solve them.

Another major goal of the Women in Medicine Committee is to increase the availability of child care facilities for working women. The Committee is formulating solutions for a new type of child care that will be convenient, safe, flexible, readily available, and close to the workplace so parents may spend more time with their children to the benefit of the parents, their children, and their profession.

Other goals of the Committee include support and social groups for women physicians, seminars to help women function with job/family stress, and a round table discussion of women physicians and medical students to discuss various women's issues perceived to be unique to working women.

The members of the Women in Medicine Committee thank Med Chi for the opportunity of serving on this Committee. We welcome any comments or suggestions for future activities from all physicians. In this exciting and changing medical atmosphere, we physicians must work together, cooperating for the excellence of our profession now and in the future.

Margaret T. Snow MD, Chairperson

Marianne Benkert MD
Cornelia M. Dettmer MD
Hilda I. Houlihan MD
Martha T. Schipper MD
Rhodora C. Tumanon MD
Carol Muffarrij
Jaleh K. Daee MD
Esther Edery MD
Barbara A. Parey MD
Beverly J. Stump MD
H. Margaret Zassenhaus MD



(l to r) Donald Wiczer, MD, Women in Medicine Chair Margaret Snow, MD, Janet Ciarcowski, MD, Brian Siegal, MD, and Zorayda Lee-Llacer, MD pose after the "Children of Working Parents" Session.

Young Physicians

Mr. President and Members of the House of Delegates:

The Committee continued to work actively to develop programs and encourage the participation of young physicians in Med Chi and its component societies. By definition, young physicians are licensed physicians under age forty or in practice less than five years.

The Committee reaffirmed its goal to strengthen the Medical and Chirurgical Faculty through increased membership by young physicians, and witnessed an increase in Committee membership from the previous year.

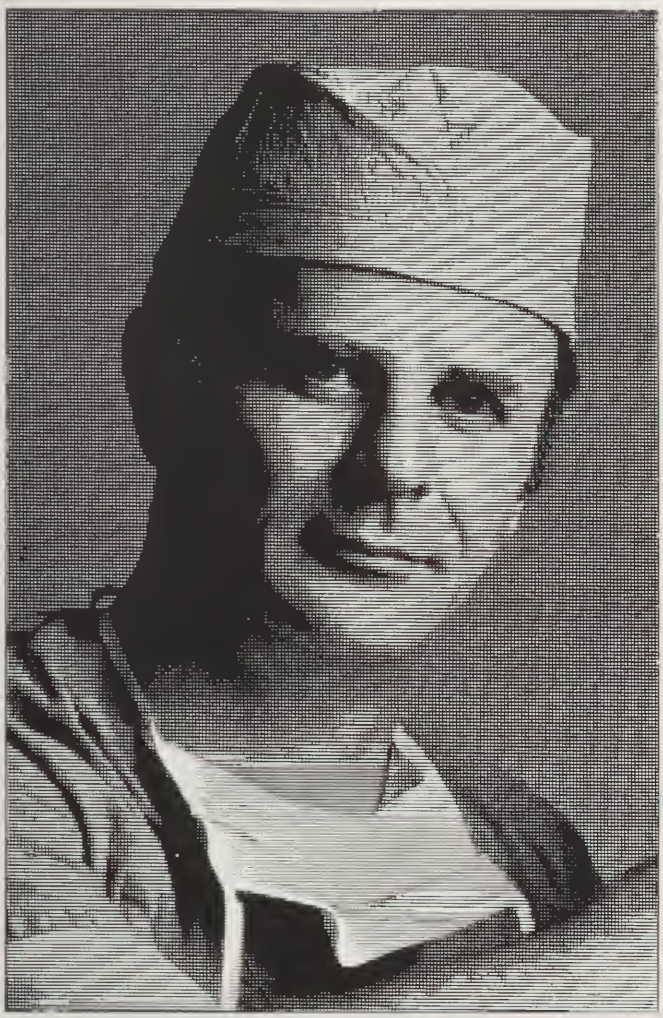
The survey conducted by the Committee to obtain demographic information and assess priorities of young physicians in Maryland was completed. The data will be used as a tool to recruit new members and to plan educational activities for young physicians.

For the second year, a young physician's social gathering was held at Med Chi's Annual Meeting. Also at the Annual Meeting, the Committee sponsored a session on "How to Improve Your Practice Management Results".

Susan W. Owens MD, Chairperson

Mary Beth Ackerley MD
Eileen D. Ebert MD
Randy Sue Ellis MD
Martin G. Guerrero MD
F. Christian Hansen, III MD
Dora M. Mamodesene MD
Joseph F. Mayo, Jr. MD
Robert C. Murphy MD
Eric A. Oristian MD
Scott M. Rifkin MD
Howard K. Schultz MD
Emily J. Windham MD
Carlos A. Alarcon MD
Willarda V. Edwards MD
Maen Jamal Farha MD
Rafael C. Haciski MD
Robert A. Kreeger MD
Mehrdad Massumi MD
Brian E. Mondell MD
Mark D. Noar MD
James P. Paskert MD
Marcel E. Salive MD
Theresa M. Vogel MD

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The Army covers his premiums. Since he's an Army Physician, there are a lot of worries associated with private practice that he won't have to contend with. Like excessive paperwork, and the overhead costs incurred in running a private practice.

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If you're interested in practicing high quality health care with a minimum of administrative burdens, examine Army medicine. Talk to your local Army Medical Department Counselor for more information.

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ARMY MEDICINE. BE ALL YOU CAN BE.

Medical Specialty Indentification Application

Name:_____

_____

Address:

_____

_____

Maryland Medical License No.:

_____

Social Security No.:
Provision of SSN is voluntary

_____

Medical specialty/subspecialty requested:

_____

_____

_____

Return this form to:
Board of Physician Quality Assurance of Maryland
4201 Patterson Avenue
P.O. Box 2571
Baltimore, MD 21215-0095
Telephone:(301)764-4777

Medical Specialty Identification

The Board of Physician Quality Assurance has adopted COMAR 10.32.09 Identification of Medical Specialties, in order to implement Health Occupations Article 14-704, which provides for the identification of medical specialists by the Board. **A physician may not represent to the public in Maryland that he is a specialist in any field of specialized medical practice unless identified as a specialist in that field by the Board.**

There are two ways to become identified as a medical specialist. They are:

A. Specialty Board certification.

If you qualify as a medical specialist because of specialty board certification, please enclose a $5 fee for each specialty requested and a photocopy of your certification.

B. Evaluation of credentials by a Medical Review Committee.

If you are not American Board of Medical Specialties (AMBS) specialty or subspecialty board certified but wish to be credentialed as a medical specialist in any field of medicine through evaluation of credentials, education, and experience, please enclose a $15 evaluation fee plus a $5 identification fee for each specialty requested). The evaluation form will then be sent to you.

AMA-ERF

Mr. President and Members of the House of Delegates:

As State Chairperson AMA-ERF, I am pleased to present the report of Faculty Members' contributions for the year 1989-90.

You will please note that through the courtesy of the AMA-ERF Foundation, also displayed are the direct contribution figures of Maryland physicians for the calendar year 1989. By way of clarification, the national figures represent funds that have not passed through my hands, but were mailed directly to National; not necessarily by Faculty members.

The loyal and generous financial support of our "Medical Family" through AMA-ERF is an important stepping-stone to achieving medical excellence in our medical schools. Not all of the contributions listed are returned for use at the University of Maryland and Johns Hopkins Medical Schools, but rather, are distributed according to the contributor's designation.

It has been a privilege to serve as AMA-ERF Chairperson for the Faculty during 1989-90; one for which I offer my sincere thanks.

To those Faculty members who have staunchly supported AMA-ERF, I extend my heartfelt thanks to each and all.



AMA-ERF Chairperson Elizabeth A. Linhardt promotes her exhibit to raise funds for medical student scholarships.

Faculty Contributions
June 1, 1989 - April 30, 1990

Allegany County	$560.00
Anne Arundel County	1,960.00
Baltimore City	4,720.00
Baltimore County	3,420.00
Calvert County	180.00
Caroline County	----
Carroll County	280.00
Cecil County	180.00
Charles County	280.00
Dorchester County	60.00
Frederick County	240.00
Garrett County	60.00
Harford County	765.00
Howard County	960.00
Kent County	100.00
Montgomery County	6,370.00
Prince George's County	2,540.00
Queen Anne's County	20.00
St. Mary's County	60.00
Somerset County	----
Talbot County	680.00
Washington County	840.00
Wicomico County	980.00
Worcester County	----
Affiliates/Residents	20.00
Total	$25,275.00

Maryland Physicians' Direct Contributions

January 1, 1989 - December 31, 1989	$66,702.00

Elizabeth A. Linhardt, State Chairperson

Auxiliary

Mr. President and Members of the House of Delegates:

This past year has been a very productive one for our Auxiliary. I was able to visit the counties and to witness the involvement and dedication of our members who participated in so many worthwhile projects. I particularly enjoyed meeting our members who were unable to come to state meetings and to see first-hand what resulted from their involvement with our group. Our counties participated in numerous community projects. Among other things, Wicomico County presented AIDS' programs to school children; Washington County conducted ElderLove, a support group for caregivers of the elderly; Prince George's County provided CPR classes; Montgomery County created and donated the "Health Yourself" collection to the Health Information Center of the public libraries and presented "Health Yourself" programs to school children; Howard County was very involved in a therapeutic riding program for the disabled; Harford County worked with a nursing home and made lap blankets for the residents; Frederick County, with the aid of Organ Annie, put on programs at several different schools; Baltimore County worked with a homeless shelter; Baltimore City worked to provide healthcare for the homeless; Anne Arundel County put on a senior health fair; and Allegany County took a healthy snacks program into its schools. These are

only a sample of the county programs. There are far too many to list. However, I would like to mention our Organ Annie dolls. These are soft sculptured dolls with removable organs used to teach children about their bodies. All of our counties are using Organ Annies in various programs and recently Organ Annie found her way to the White House. Our first lady is now the owner of an Organ Annie doll donated by the Montgomery County Auxiliary. After receiving her doll, Mrs. Bush had very flattering comments to make about both the Organ Annie program and the Auxiliary. In addition to the community programs, each county also worked to raise funds for AMA-ERF. Together with faculty contributions, the Auxiliary raised approximately $55,000 for AMA-ERF.

We have been involved in many areas, however, our major emphasis this year was two-fold -- legislation and child abuse.

Legislation being a major concern to all of us, we committed to doing whatever we could to become a meaningful voice in legislative matters pertaining to medicine and to the common good of our communities. We spent a great part of the year working in this regard and educating our members as to the part they can, and should, play in the legislative arena. We organized a "Day in Annapolis" to learn more about state politics and to further make our presence felt by many of our state legislators. We also participated in Med Chi's statewide legislative rally where we again had the opportunity to meet with our state representatives. On the national level, we participated in a multi-state conference on legislation in Washington, DC, offering us the opportunity to interact with neighboring state auxiliaries and to meet with our congressional representatives. The guest speaker at our Fall House of Delegates meeting was Congressman Tom McMillan. Congressman McMillan has been labeled a "friend to medicine" and it was good to have the opportunity to discuss legislation with a congressman who shares many of our concerns. We have had legislative updates at all of our meetings by our legislative chairperson and we have also had updates at various times by both AMPAC and MMPAC. When there has been a need, we have conducted phone and letter campaigns pertaining to specific bills, and whenever given the chance, we have voiced our concerns in person to our representatives. We met with Governor Schaefer, and we were presented a proclamation by Maryland's House of Delegates in recognition of our efforts toward the betterment of medicine. We are aware of the importance of legislative reform, and we have demonstrated our ability to be an influence.

Our work with legislation is not something that will end with my year, as it is not something that began in my year. Legislative reform will continue to require our involvement, both as concerned citizens and as members of the medical community. We recognize that the more knowledge we gain and the more our presence is felt, the better able we will be to have an impact on legislation.

Our other area of emphasis this year has been on the fight against child abuse. Child abuse, one of our society's most devastating problems, leaves in its wake helpless victims who need our support desperately. We asked the chairperson of our National Health Projects Committee to address this topic at our House of Delegates meeting and her speech further increased our awareness of the severity of this problem. In response to this situation, our counties participated in various programs educating the public and offering aid to child abuse victims and their families. We also raised funds to be used for work in this area. In addition to the funds raised by each county, the State Auxiliary donated $5,000 to this effort.

The prevention of child abuse has always been a special concern of mine, and I am very pleased and proud of what our Auxiliary has done in this regard. Our members have once again demonstrated their compassion and willingness to work for the benefit of others, and we have received recognition for this. The Chairman of the Board of Parents Anonymous, a national group that works for the prevention of child abuse and with treatment programs, wrote to commend us on our efforts and to express his encouragement and support. We also received communication from the Executive Director of the Chesapeake Institute, another organization that works with abused



Outgoing Auxiliary President Victoria E. Cameron and Incoming Auxiliary President Josefina D. Figueroa await entrance to the Auxiliary Board Meeting.

children. It is certainly rewarding to be involved in such meaningful work, and it is also nice to know that others recognize our efforts.

Another goal that we achieved this year is the formation of a new county auxiliary. At the start of the year we noted that several counties in Maryland did not have auxiliaries. We decided to approach them in an attempt to establish auxiliaries. In a time when volunteer groups all over struggle for members, I am happy to announce that we have added a new county to our organization; Kent County officially organized this year. They are an enthusiastic group and add much to our Auxiliary. In addition to Kent, we are working to organize other counties and it appears as though Calvert County may be joining us soon. It is encouraging to know that with all the different outside interests people have and with the limited time they have to devote to volunteer groups, we are still able to form new county auxiliaries and add these people to our membership.

For the first time in our history, one of our members will also be the President of our Medical Society; Dr. Reynaldo Lee-Llacer, the new President of the State Medical Society, is a physician married to a physician. His wife has been a member of our group but he has not, although he has the same eligibility as she has. This year he joined the Auxiliary, making him the first auxilian to be the President of Med Chi.

Med Chi has always been very supportive of the Auxiliary and proud of our accomplishments. We serve on several Medical Society committees and we have been treated as valued members of those committees. I have particularly enjoyed my involvement with the Committee on Scientific Activity. In addition to those on which we currently serve, we have recently been asked to fill a position on Med Chi's AIDS Committee which we will do in the upcoming year. Besides our committee involvements, we have also worked with the Medical Society on legislative matters. Med Chi has demonstrated a respect for us as a group and as individuals and we are very appreciative of the relationship we have enjoyed with the Medical Society.

This last year is a year I will never forget. Being President of Maryland's Auxiliary has meant so much to me and this is because of the respect I have for the people who elected me and with whom I have worked. While representing the Auxiliary, I have met some remarkable people but I can assure you, there are none better than the people in the Auxiliary. This has been a most memorable time in my life and it has truly been an honor to serve as President of the Auxiliary to the Medical and Chirurgical Faculty of Maryland. I look forward to many more years with the Auxiliary and know there is no end to what we can accomplish working together on the issues that concern us.

Victoria E. Cameron, President 1989 - 1990

Delegation to the AMA House of Delegates - 1989 Interim Meeting

Mr. President and Members of the House of Delegates:

The AMA House of Delegates met in Honolulu, December 3-6, 1989. This was a very busy meeting, with 187 resolutions and 79 Board and Council reports to consider. The House took positions on some far-reaching issues of vital importance to the practicing physician.

There were 435 delegates seated. The House composition is:

347 delegates representing state medical associations
78 delegates representing national medical specialty societies
10 delegates representing medical students, resident physicians, hospital medical staffs, young physicians, Army, Navy, Air Force, USPHS, and the Veterans Administration

Address of the President Alan R. Nelson MD, AMA President, declaring that "the AMA works," cited an impressive list of accomplishments as an answer to the proverbial question, "What does the AMA do for me?" He included:

- the defeat of mandatory assignment four times in the past three Congresses
- the fact that the AMA is the world's largest publisher of scientific information
- the defeat of expenditure targets in the budget bill
- the AMA's commitment to NIH funding to protect the stability and integrity of medical research in the U.S.
- the AMA's considerable activities in communicating medicine's story to the public
  - weekly news releases to 3,000 reporters
  - meetings with editorial boards
  - American Medical Television reaches over 50,000 physicians and 800,000 lay people each month
  - American Medical Radio News is used by 500 radio stations daily

Dr. Nelson urged the nation's physicians to get involved and join the AMA as "your best investment in the future." He expressed concern that "the frustration and disillusionment being expressed by physicians in America will lead them to throw up their hands in despair rather than raise up their arms in support."

Lauro F. Cavazos PhD, US Secretary of Education Dr. Cavazos addressed the opening session of the House of Delegates. A former medical school dean, Dr. Cavazos declared that "our medical schools are at the forefront of curricular innovation and continue to attract the finest students." He credited the AMA with playing "an essential role in assuring that educational quality is maintained."



(l to r) J. David Nagel, MD; Donald T. Lewers, MD; Congressman Benjamin Cardin (D-MD); and Raymond M. Atkins, MD pose for a photo during a break in the theme symposium.

Dr. Cavazos called on the delegates for assistance in improving and restructuring our nation's system of education. He said, "without a well-educated citizenry, the United States is in danger of becoming what has been described as the world's only fully industrialized third-world nation."

Dr. Cavazos called for major restructuring of the nation's educational system to provide:

- early childhood education
- safe, drug-free schools for all of America's children
- support for teachers from physician volunteers

AIDS The House approved a major policy update on the medical, legal, and social implications of AIDS and HIV infection. The Board report addressed a number of issues related to education, research, national policy, financing media coverage, and the prevalence and incidence of AIDS:

- recommended contact-tracing and notification of needle partners
- recommended that the AMA Council on Medical Service study the cost of care for patients in each stage of HIV infection and estimate the number of people in each stage now and in five years.
- pledged ongoing support for funding for research, education, and patient care, as well as for alternatives to inpatient care.
- vowed to work with other physician groups, public health officials, and universities to advance training for primary care MDs and specialists.
- encouraged MDs to provide information to patients about HIV prevention and to become more involved in the care of HIV-infected patients.
- endorsed institutional indemnification of medical students and resident physicians infected as a result of patient contact.
- said AMA would consult with appropriate federal agencies and drug manufacturers about the expansion of AIDS drugs.
- urged MDs to take comprehensive and thorough sex and drug histories in a non-judgmental fashion.
- asked federal and state agencies to establish rigorous proficiency testing and quality control procedures for testing labs frequently and regularly.
- reaffirmed its commitment to mandatory testing of inmates in federal and state prisons and supported mandatory testing of all newborns in high prevalence areas.

In other AIDS-related actions, the House:

- encouraged state legislation to establish requirements for reporting and case follow-up for serious contagious diseases, including HIV infection.
- requested that the Food and Drug Administration address the problem of readable instructions for condoms.
- recommended that the FDA not allow home test kits for HIV.

Drug Abuse in the United States The House considered a Board report and several resolutions related to drug abuse. The report states that America's drug epidemic has evolved in recent years from an urban plight to a national crisis. The Board pledged its continuing involvement in programs to alert physicians and the public to the dimensions of the problem and the most promising solutions. The report recommended that the AMA:

1. Cooperate in activities of organizations such as the National Association for Perinatal Addiction Research and Education (NAPARE) in fostering education, research, prevention, and treatment of maternal drug and alcohol use.
2. Encourage the development of model alcohol and drug treatment programs, complete with an evaluation component, that are designed to meet the special needs of pregnant women through a comprehensive array of essential services.
3. Urge physicians to routinely screen all pregnant women and those of childbearing age for drug and alcohol use, and to follow-up positive screens with appropriate interventions and referrals.
4. Pursue the development of educational materials for physicians and the public on prevention, diagnosis, and treatment of perinatal addiction. In this regard, the Board encourages further collaboration with the Partnership for a Drug-free America in delivering appropriate messages to health professionals and the public on the risks and ramifications of perinatal drug and alcohol use.
5. Urge the National Institute on Drug Abuse, the National Institute on Alcohol Abuse and Alcoholism, and the Federal Office for Substance

Abuse Prevention to continue to support research and intervention strategies.

6. Urge that public policy be predicated on the understanding that alcoholism and drug dependence are diseases characterized by compulsive use in the face of adverse consequences.
7. Affirm the concept that substance abuse is a disease and develop model legislation to appropriately address perinatal addiction as a disease, bearing in mind physicians' concern for the health of the mother, the fetus, and resultant offspring.
8. Call for better coordination of research, prevention, and intervention services for women and infants at risk for both HIV infection and perinatal addiction.

In a related action, the House adopted a resolution entitled "Substance Abuse as a Public Health Hazard," that called upon the AMA to:

- recognize that substance abuse is the major health problem in the United States today and that its solution requires a multifaceted approach.
- declare substance abuse its number one public health priority.
- take a positive stance as a leader in matters concerning substance abuse.
- study innovative approaches to the elimination of substance abuse dependencies and their resultant street crime, including approaches which have been used in other nations.

Prevention of Drunk Driving The House adopted a resolution introduced by the Young Physicians Section that addressed the issue of the involvement of alcohol as a leading cause of morbidity and mortality in motor vehicle accidents. The House voted to:

- encourage state medical societies to urge their state legislators to adopt a blood alcohol level of 0.05 percent as per se illegal for driving.
- work with Congress to make federal highway funds to states contingent upon state adoption of a blood alcohol level of 0.05 percent as per se illegal for driving.

Frozen Pre-embryos The House approved a report that discusses the legal and ethical issues created by the freezing of human pre-embryos and offers guidelines as to the rights of the gamete providers and the disposition of the pre-embryos.

ABMS Yellow Pages Listing The House adopted a resolution introduced by the District of Columbia Delegation that called upon the AMA to:

- urge the American Board of Medical Specialties (ABMS) to abandon the entrepreneurial endeavor of placing display advertisements in the major Yellow Pages telephone directories where board certified specialists are located.



Theme Symposium speakers (l to r) John Zapp, DDS; Ross N. Rubin, Esq.; Palma E. Formica, MD; John Seward, MD; and Thomas Reardon, MD prepare to address Maryland's physicians on "What to Expect in the 1990's."

- insist that truth-in-advertising demands that ABMS state to all callers that its display listings may not represent a complete listing of all board certified specialists.

Health Insurance Coverage for the Uninsured The House adopted a resolution that addressed the problem of having an estimated 37 million Americans without health insurance. Introduced by the American Academy of Family Physicians, the resolution called upon the AMA to reaffirm its support for ensuring access to healthcare for the uninsured:

- through various combinations of employer-sponsored coverage.
- other private approaches such as risk pools and the AMA proposed restructuring of Medicaid and Medicare programs.

Dependent Uninsured Coverage In a related action, the House approved a resolution, introduced by the Hospital Medical Staff Section, calling for an AMA study of the health insurance coverage for the uninsured "dependent" population.

Billing for Cross-coverage A number of resolutions addressed physician dissatisfaction with the practice of Medicare, Medicaid, and most private payors to not allow practitioners to bill for services provided by covering physicians.

The House approved a policy calling on the AMA:

> to pursue all appropriate legislative, regulatory, and administrative means to amend or eliminate the inappropriate enforcement of the Social Security Act and/or Medicare regulations in order to make it possible for physicians in solo or group practice to bill and receive payment for professional services to their Medicare patients rendered by colleagues who provide them with traditional short-term coverage.

Funding for the AMA's Physicians' Assistance Program Several state delegations cosponsored a resolution asking the AMA to continue to adequately fund and maintain an impaired physicians' program or "Physicians' Assistance Program." The resolution which was adopted as amended, directed that the charge of the program will include, but not be limited to:

- promoting state medical society impaired physician programs and medical student impairment programs.
- providing technical assistance to state programs.
- conducting scientific and socioeconomic research.
- hosting an annual conference to share research and exchange ideas on the field of physician impairment.

Resolutions Submitted by Maryland Delegation

Gun Control - Resolution #34

RESOLVED, That the American Medical Association use its influence in matters of health to effect passage of legislation in the Congress of the United States mandating a national waiting period that allows for a police background and positive identification check for anyone who wants to purchase a handgun from a gun dealer in our country.

House Action: Adopted, as amended.

Use of Insecticides - Resolution #35

RESOLVED, That the American Medical Association, at once and with the greatest vigor, bring before the members of the Congress of the United States our urgent request to curb the inappropriate and unsafe use of insecticides, fungicides, and other chemicals used to improve or alter the growth of fruits and vegetables; and be it further

RESOLVED, That the safety of these and any other chemicals used in the future be proved before they may be introduced into the food chain.

House Action: The House adopted the Reference Committee's recommendation that Resolution 101, "Effects of Pesticides," be adopted in lieu of Resolution 35. Resolution 101 asks that the AMA urge Congress, the EPA, and other responsible state and federal regulatory agencies to determine the effects of pesticides on humans.

Support for Improvement of the Health Environment in Developing Countries - Resolution #36

RESOLVED, That the American Medical Association take all possible action to:

1. Encourage Congress to express a strong and clear commitment to continue the promotion of measures to improve child survival and development through long-term health and environmental programs in the poor countries of the world; and
2. Promote in Congress the passage of legislation that will provide tax and other incentives so that American banks, the International Monetary Fund and the World Bank will remit national debts in developing countries on the condition that additional funds in local currency, equivalent to the payments required under current obligations, will be allocated to continuing programs for the following activities:
   - Expansion of child survival and nutrition programs.
   - Development of a primary healthcare infrastructure.
   - Initiation and expansion of control efforts against major endemic diseases such as malaria, leprosy, tuberculosis, childhood pneumonia and other infectious diseases.
   - Improvement of environmental conditions to enhance the quality of life and protect local ecology in developing countries where massive environmental deterioration is having both local and worldwide impact.

House Action: This resolution was not adopted, but was referred to the AMA Board of Trustees for action.

Albert M. Antlitz MD, Chairperson
Roland T. Smoot MD, Vice-Chairperson

Delegates

Michael R. Dobridge MD
Donald T. Lewers MD
Joseph Snyder MD
John H. Hebb MD
George S. Malouf, Sr. MD

Alternate Delegates

Raymond M. Atkins MD
Barry E. Epstein MD
J. David Nagel MD
Henry N. Wagner, Jr. MD
Alex Azar MD
Reynaldo L. Lee-Llacer MD
Daniel P. Paoli

Executive Director

Mr. President and Members of the House of Delegates:

The 1989-1990 year was successful for the physicians of Maryland. All of the Faculty's achievements are the result of the work of many dedicated physician members.

Faculty Position Papers Among Med Chi's most noteworthy successes in 1989-1990 was the initiation of the Faculty's position papers by President Raymond M. Atkins MD. Council passed six position papers on the following subjects: AIDS, prescription drug control, cholesterol testing, the problems of the uninsured, peer review management, and teen pregnancy and infant mortality. These papers helped Med Chi take a

proactive stance on many legislative issues and proved to be a useful tool in this year's lobbying efforts.

1990 Legislative Session Another significant Med Chi achievement was the legislative rally. Almost 200 physicians showed their strong support of organized medicine by attending this year's rally in Annapolis. The large physician turnout was a clear demonstration of unity among physicians and it helped to show our state legislators that physicians do not want further government regulation of medicine. Among the legislators speaking at the rally were Speaker of the House, R. Clayton Mitchell, and Senate President, Thomas V. Mike Miller.

Because of the strong support from member physicians this legislative session, Med Chi experienced a number of legislative victories. These included the defeat of Mandated Medicare Assignment for the fourth consecutive year. The Faculty opposed this bill that would have required physicians to accept Medicare assignment based on income levels. A bill that would have required a Triplicate Prescription Program to be initiated in Maryland also was opposed by the Faculty and defeated. The General Assembly also defeated a bill that would have prohibited physicians from referring patients to laboratories in which the physician had a financial interest.

Other significant legislative victories include the defeat of House Bill 1248, a Health Services Cost Review Commission (HSCRC) submission that would have regulated the activities of anesthesiologists, radiologists and pathologists; and, the defeat of House Bill 1195, another HSCRC bill, which would have initiated studies on the utilization and cost of non-hospital healthcare services and recommended utilization control mechanisms for these services.

Med Chi also strived to pass several bills that will benefit medicine in Maryland. Among this legislation was a bill that will provide additional counseling for the Physician Rehabilitation Program.

(For a more in-depth discussion of legislative activities this year, see the Legislative Committee report on p.757).

Expenditure Targets Defeated On the national level, Med Chi physicians helped defeat the Expenditure Targets (ETs) proposal in Congress. The AMA lobbied hard to prevent this proposal which would have limited the amount paid for physician services under Medicare. Following the defeat of ETs, Congress created the Medicare Volume Performance Standard (MVPS), a mechanism to provide detailed data to Congress on service volume and intensity changes, rather than ascribing expenditure increases solely to physicians. Under MVPS, the Secretary of Health and Human Services must analyze the factors behind the growth in expenses, such as patient demand, new technology, and the aging and growth of the Medicare population. Med Chi and the AMA are optimistic that MVPS will provide a more rational and equitable analysis of the current system.

Professional Liability In addition to its legislative victories, Med Chi worked hard to strengthen Maryland medicine in other areas. One of Med Chi's primary goals last year was aimed at lowering liability insurance premiums. Throughout the past year, Med Chi worked closely with the Medical Mutual Liability Insurance Society of Maryland to secure further reductions in liability insurance rates. As a result, Medical Mutual did not seek a rate increase for its member physicians in 1989. This was the third consecutive year that Medical Mutual did not increase its rates. In January 1990, Medical Mutual announced that it would offer a 5 percent premium discount to all its members who attend a risk management seminar designed to teach physicians how to improve their communication skills. Both Med Chi and Medical Mutual maintain that improved communication skills will enhance quality of care and can reduce the risk of malpractice claims.

Increased Fee Schedule for Medicaid While attempting to reduce malpractice premiums, Med Chi also endeavored to increase Medicaid reimbursement. At its meeting in March 1990, Council voted to support a new Medicaid program. The Council's position was to support an across the board increased fee schedule. The increase is intended to encourage a greater number of primary care providers to care for Medicaid patients.

New Credentialing Service Med Chi also entered into a new joint venture with the Maryland Hospital Association to create Healthcare Credentials Verification, Inc., an organization that will collect and disseminate the information hospitals need to credential and recredential physicians for medical staff appointment and reappointment. This organization, which holds the same immunity as a medical review committee under current law, is designed to simplify the credentialing and recredentialing process for all physicians.

New Peer Review Manual Another significant accomplishment was the creation of a new peer review manual. This manual, prepared through the cooperation of Med Chi's Peer Review Committee, Component Societies, and the Board of Physician Quality Assurance (BPQA), has become a national model for use in other states. In April, this manual was presented at the annual meeting of the Federation of State Medical Boards of the United States and was commended for its effectiveness.

AMA Leadership Conference Maryland physicians received national recognition for a second time in 1989 during the AMA National Leadership Conference in Phoenix, Arizona. Wayne C. Spiggle MD from the Allegany Health Right Program was featured in a seminar entitled "Bridging the Gap," which presented model programs demonstrating ways the medical profession can regain the public's trust. The Allegany

County Medical Society's Allegany Health Right program for gray-area patients who do not qualify for government aid and cannot afford health insurance, is an ideal example of a program that epitomizes the attitude inherent in physicians: to strengthen the doctor/patient relationship.

Health Access America In March, Med Chi announced its support of the AMA's Health Access America, a nationwide program with ideals similar to those of the Allegany Health Right Program. Health Access America is a proposal to improve access to affordable, quality healthcare for all Americans. The proposal, which accentuates the strengths of our medical care system, attempts to correct the problem of over 33 million Americans who lack health insurance coverage and cannot afford the cost of medical treatment. The proposal contains 16 points designed to correct our medical system's weaknesses by controlling healthcare cost increases, reforming Medicare and Medicaid, and insuring all Americans access to affordable healthcare. The proposal also will initiate further tort reform, establish state level risk pools for individuals who cannot afford insurance, and formulate practice parameters for physicians.

President's Regional Conferences Another of Med Chi's primary goals for 1989-1990 was to increase communication among Med Chi, component societies and member physicians. President Raymond M. Atkins MD continued the tradition initiated by Past-President Michael R. Dobridge MD by holding regional conferences in the western, southern and eastern corners of the State. Med Chi hopes to continue regional meetings to keep physicians informed about Med Chi policies and plans, upcoming legislation, and general news; and it is hoped that these meetings will encourage participation in Med Chi activities by all members.

Med Chi Semiannual Meeting In addition to regional meetings, Med Chi sponsored its Semiannual Meeting at the Sheraton Resort and Conference Center in Ocean City from September 14-16, 1989. The meeting featured a number of scientific sessions and was highlighted by the presentation of several Faculty Position Papers.

Med Chi Annual Meeting "What Can We Expect in the 1990s" was the theme for Med Chi's Annual Meeting held from May 9-11, 1990 at the Turf Valley Hotel and Country Club in Ellicott City. During the meeting, American Medical Association (AMA) Trustee, Lonnie Bristow MD, delivered an address on "Healthcare Financing: An American Solution." Other speakers included Congressman Benjamin L. Cardin on "Federal Legislative Issues in the 1990s," and Johns Hopkins Medical School Professor of Genetics, Victor A. McKusick MD, who spoke on the latest scientific developments in genetics. In addition, representatives from the AMA reviewed our nation's legislative affairs, and long-range plans and expectations.

It has been an honor and a privilege to serve the members of Med Chi this year. I send my deepest appreciation to all the physicians who actively participated as Med Chi members; your contributions helped make this year a productive one for medicine.

Angelo J. Troisi FACHE, Executive Director

Treasurer

Mr. President and Members of the House of Delegates:

The financial books and records of the Medical and Chirurgical Faculty for the year ended December 31, 1989 have been audited by the firm Naden Lean, Certified Public Accountants.

The financial statements reflecting the financial position of the Faculty at year end 1989 and 1988, and the related statements of income, expenditures, transfers, and changes in fund balances for the years then ended are published in the report. The auditors have submitted an unqualified opinion that the financial statements are accurate and conform to generally accepted accounting principles.

The 1990 Budget was approved by Council in January and is presented in this report for your information. It is the first time a zero-based budget was developed.

The investment portfolio was reviewed and is part of the report of the Finance Committee Report.

Jose M. Yosuico MD, Treasurer



Med Chi members attend a lecture in the Grand Ballroom at Turf Valley Hotel and Country Club at this year's Annual Meeting.

Naden Lean

CERTIFIED PUBLIC ACCOUNTANTS

The Medical and Chirurgical Faculty
of the State of Maryland
Baltimore, Maryland

The audited financial statements of the Faculty as of December 31, 1989 and 1988 and our report thereon are presented in the preceding section of this report. The financial information presented hereinafter was derived from the accounting records tested by us as part of the auditing procedures followed in our examinations of the aforementioned financial statements and , in our opinion, it is fairly presented in all material respects in relation to the financial statements taken as a whole; however, it is not necessary for a fair presentation of the financial position and results of operations of the Faculty.

Naden Lean

May 17, 1990

Lutherville, Maryland

Paul H. Naden
Gerald H. Lean
Ronald M. Ehman
Allan H. Cohen
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Exhibit A

The Medical and Chirurgical Faculty of Maryland
Baltimore, Maryland

BALANCE SHEET

	General Fund	Endowment and Special Fund	Plant Fund	Med Chi Insurance Fund	Total December 31, 1989	Total December 31, 1988
ASSETS						
Cash	$4,245,148	$348,444	$3,664	$3,296,732	$7,893,988	$7,142,260
Accounts Receivable						
Membership dues, Journal and advertising	95,405	-	-	-	95,405	81,924
Other Funds	250,000	525,589	-	218,691	994,280	372,425
Other	145,555	-	-	-	145,555	239,486
The Med Chi Agency, Inc.	15,868	-	-	-	15,868	98,969
Prepaid expenses	8,451	-	-	-	8,451	12,305
	4,760,427	874,033	3,664	3,515,423	9,153,547	7,947,369
Marketable securities	-	2,279,844	-	-	2,279,844	2,062,006
Investment - The Med Chi Agency, Inc.	73,790	-	-	-	73,790	102,859
Fixed Assets						
Land, buildings and improvements	-	-	3,526,447	-	3,526,447	2,982,979
Other	55,652	-	383,940	-	439,592	470,898
	$4,889,869	$3,153,877	$3,914,051	$3,515,423	$15,473,220	$13,566,111
LIABILITIES AND FUND BALANCES						
Current Accounts Payable						
Trade	$ -	$ -	$ -	$2,691,953	$2,691,953	$1,424,778
Other funds	741,003	-	3,277	250,000	994,280	372,425
The Med Chi Agency, Inc.	-	-	-	38,410	38,410	28,886
Component societies	886,172	-	-	-	886,172	1,417,292
Payroll taxes	7,816	-	-	-	7,816	9,258
Accrued expenses	80,000	-	-	-	80,000	11,711
Deferred income	1,109,177	-	-	-	1,109,177	975,673
Deferred compensation	-	286,355	-	-	286,355	287,100
	2,824,168	286,355	3,277	2,980,363	6,094,163	4,527,123
Fund Balances						
Invested in fixed assets	-	-	$3,910,387	-	$3,910,387	3,366,919
Designated						
Legal fund	87,425	-	-	-	87,425	87,425
Educational purpose	58,932	-	-	-	58,932	52,252
Other	3,733	-	-	-	3,733	2,971
Undesignated	1,915,611	2,867,522	387	535,060	5,318,580	5,529,421
	2,065,701	2,867,522	3,910,774	535,060	9,379,057	9,038,988
	$4,889,869	$3,153,877	$3,914,051	$3,515,423	$15,473,220	$13,566,111

The accompanying notes to financial statements are an integral part of this statement.

Exhibit B

Statement of Income, Expenditures and Transfers, General Fund (Undesignated)

	For Years Ended Dec. 31, 1989	Dec. 31, 1988
INCOME		
Dues	$1,152,204	$1,170,364
Rents and services	203,393	64,982
Meetings	73,893	184,505
Journal advertising and subscriptions	146,789	117,894
Interest	201,088	193,409
Miscellaneous	357,248	310,379
Equity interest in the Med Chi Agency, Inc.	190,931	154,821
	2,325,546	2,196,354
EXPENDITURES		
Operating expenses	2,674,179	2,417,565
Excess (deficit) of income over expenditures	(348,633)	(221,211)
Transfer from charitable education fund	69,205	-
Transfers to plant fund	(543,467)	(119,306)
Transfers from Med Chi Insurance fund	250,000	-
Excess (deficit) of income over expenditures and transfers	$ (572,895)	$ (340,517)

The accompanying notes to financial statements are an integral part of this statement.

Exhibit C

Statement of Income and Expenditures, Med Chi Insurance Fund

	For Years Ended December 31, 1989	December 31, 1988
INCOME		
Administrative fees	$ 50,211	$ 55, 517
Interest	285,832	157,957
	336,043	213,474
EXPENDITURES		
Administrative services	34,622	36,762
Postage, printing and supplies	40	49
Rent	960	960
Telephone	200	200
Contributions	-	27,000
	35,822	64,971
Excess of income over expenditures	300,221	148,503
Transfer to general fund	(250,000)	-
Excess of income over expenditures and transfers	$ 50,221	$148,503

The accompanying notes to financial statement are an integral part of this statement.

Statement of Changes in Fund Balances For Year Ended December 31, 1989 Exhibit D

	Additions						Deductions		
	Balance Jan. 1, 1989	Excess (deficit) of Income over Expend. & Transfers	Invest-ment Income	Interest on Savings Accounts	Other Income and Contrib. Received	Gain on Sale of Securities	Transfers In (Out)	Expend-itures	Balance Dec. 31 1989
General Fund									
Designated	$142,648	$ 7,442	$ -	$ -	$ -	$ -	$ -	-	$150,090
Undesignated	2,488,506	(348,633)	-	-	-	-	(224,262)	-	1,915,611
Endowment and Special Funds	2,555,896	-	180,745	1,672	-	213,797	-	84,588	2,867,522
Plant Fund	3,367,099	-	-	208	-	-	543,467	-	3,910,774
Med Chi Insurance Fund	484,839	300,221	-	-	-	-	(250,000)	-	535,060
	$9,038,988	$ (40,970)	$180,745	$1,880	$ -	$213,797	$69,205	$84,588	$9,379,057

For Year Ended December 31, 1988

	Additions						Deductions		
	Balance Jan. 1, 1988	Excess (deficit) of Income over Expend. & Transfers	Invest-ment Income	Interest on Savings Accounts	Other Income and Contrib. Received	Gain on Sale of Securities	Transfers In (Out)	Expend-itures	Balance Dec. 31 1988
General Fund									
Designated	$ 128,249	$ -	$ -	$ -	$28,253	$ -	$ -	$ 13,854	$ 142,648
Undesignated	2,829,023	(221,211)	-	-	-	-	(119,306)	-	2,488,506
Endowment and Special Funds	2,480,556	-	154,272	1,325	10,294	81,793	(60,072)	112,272	2,555,896
Plant Fund	3,187,541	-	-	180	-	-	179,378	-	3,367,099
Med Chi Insurance Fund	336,336	148,503	-	-	-	-	-	-	484,839
	$8,961,705	$ (72,708)	$154,272	$1,505	$38,547	$ 81,793	$ -	126,126	9,038,988

The accompanying notes to financial statements are an integral part of this statement.

The Medical and Chirurgical Faculty of Maryland
Baltimore, Maryland

Notes to Financial Statements
December 31, 1989

Note 1 - Summary of Significant Accounting Policies

The Medical and Chirurgical Faculty of the State of Maryland is a nonprofit organization, tax exempt under Section 501 of the Internal Revenue Code.

Marketable securities are carried at cost. Market values at December 31, 1989 and 1988 were $2,771,443 and $2,376,946, respectively.

The Faculty carries its investment in the 100 percent-owned Med Chi Agency, Inc., at equity. The net assets of the corporation as of December 31, 1989 and 1988 were as follows:

	1989	1988
Current assets	$744,726	$284,076
Fixed assets - net	24,186	17,682
	768,912	301,758
Current liabilities	695,122	198,899
	$ 73,790	$102,859

Fixed assets of the plant fund, other than personal property, are recorded at cost. Portraits were appraised as of December 31, 1963 at $65,000, an increase of $51,000 over prior years. All other personal property was appraised as of December 31, 1949. Depreciation on fixed assets is not provided. A schedule of fixed assets follows:

	1989	1988
REAL ESTATE		
1209-1215 Cathedral Street		
Land and buildings	$110,636	$110,636
Improvements	543,035	543,035
1205-1207 Cathedral Street and 1204 Maryland Avenue		
Land and buildings	2,138,624	2,134,752
Improvements	188,296	188,296
224 Main Street, Annapolis		
Land and buildings	545,856	6,260
	3,526,447	2,982,979
OTHER		
Library books, journals	231,370	231,370
Office and library - fixtures, antiques & museum pieces	87,570	87,570
Portraits	65,000	65,000
	383,940	383,940
	$3,910,387	$3,366,919

Fixed assets of the general fund are recorded at cost and depreciated using the straight-line method over their estimated useful lives for assets acquired prior to 1981, using the accelerated cost recovery system for assets acquired after 1980 and the modified accelerated cost recovery system for those acquired after 1986.

	Dec. 31, 1989	Dec. 31, 1988	Life in Years
Automobiles	$ 15,700	$ 32,000	3
Office equipment and furniture	308,384	290,282	5-10
Total cost	324,084	322,282	
Less - accumulated depreciation	268,432	235,324	
	$ 55,652	$ 86,958	

Provision for depreciation charged to operations for the years ended December 31, 1989 and 1988 was $48,992 and $48,585, respectively.

Deferred income reflects dues collected in November and December for subsequent years.

Note 2 - Pension Plan

The Faculty has a noncontributory pension plan covering substantially all its employees. Pension expense for the current year and prior year were $89,408 and $91,832 respectively, which includes amortization of prior service cost over 20 years. The Faculty's policy is to fund pension costs accrued. Actuarially determined pension costs are funded on an annual basis by the Frozen Initial Liability method with initial accrued liabilities computed under the Entry Age Normal Cost method. The accumulated plan benefits and plan net assets for 1989 have not been calculated. The last accumulated plan benefits and plan net assets for the Faculty is presented below:

	1988
Actuarial Present Value of Accumulated Plan Benefits	
Vested	$662,369
Nonvested	103,199
	$765,568
Net assets available for benefits	$897,015

The assumed rate of return used in determining the actuarial present value of accumulated plan benefits was 6.5 percent for 1988. The fund's assets as of April 1, 1988 exceeded the vested benefits by $234,646.

Note 3 - Related Parties

The Medical and Chirurgical Faculty of the State of Maryland owns the stock of the Med Chi Agency, Inc. The Faculty leases office space to the Agency under a month-to-month lease. Lease payments from the Agency were $17,286 per year for 1989 and 1988. Additionally, the Faculty performed certain management and accounting services for the Agency; income for these services was $105,000 per year in 1989 and 1988.

1990 Budget
Income

	Administration	Finance & Membership	Maintenance Janitorial	MMJ	Public Relations	Graphics	Human Resources	Legal - Gov't Rel.	Computer Services	Library Services	Credentialing	Prof. Serv. Committees	Peer Review	Phys. Rehab.	Educ. & Meeting Mangmt	Assoc. Services	Undistributed	Total
Dues		1,175,000																1,175,000
Investments - Short-Term		150,000																150,000
Invest. - Med Chi Agency		300,000																300,000
Invest. - Other Funds		250,000																250,000
Journal				167,688														167,688
Directory						32,000												32,000
Eye Phys/Newsletter						2,000												2,000
Psych Soc Newsletter						5,200												5,200
Educational Fund - P.R.					5,000													5,000
Photocopying										4,417								4,417
Non-Affil Users										9,000								9,000
Inter Libr Loans										3,124								3,124
Medline										2,557								2,557
Consulting										2,033								2,033
Hosp Libr Cataloging										13,513								13,513
Hosp Libr Periodicals										1,290								1,290
BPDA Contract									100,000									100,000
AMA Profiles									7,000									7,000
Malpractice Cases									2,400									2,400
Physicians Rehab														101,340				101,340
Annual Meeting															102,500			102,500
Semiannual Mtg															30,000			30,000
Workshops															51,875			51,875
Travel - 14 Trips															8,400			8,400
Co-sponsor Appls															3,000			3,000
CME Accred. Appls															4,550			4,550
Annapolis Bldg																	12,000	12,000
ACEP																15,000		15,000
MSEP																15,000		15,000
Insurance Activities		122,000																122,000
Rent-Insurance		18,000																18,000
Dues Collect Fees		15,000																15,000
Collection Serv		30,000																30,000
Credit Card		1,800																1,800
Parking Lot		1,200																1,200
MPS - Computer Billing		250																250
Prime Financial		2,000																2,000
Labels & Lists		10,000																10,000
Subscription Service		500																500
Miscellaneous		4,000																4,000
Credentialing											69,950							69,950
INCOME		2,079,750		167,688	5,000	39,200			109,400	35,934	69,950			101,340	200,325	30,000	12,000	2,850,587

1990 Budget
Expenses

	Administration	Finance & Membership	Maintenance Janitorial	MMJ	Public Relations	Graphics	Human Resources	Legal - Gov't Rel.	Computer Services	Library Services	Credentialing	Prof. Serv. Committees	Peer Review	Phys. Rehab.	Educ. & Meeting Mangmt	Assoc. Services	Undistributed	Total
Salaries	190,098	191,356	69,179	71,991	47,183	13,284	24,156	53,421	112,101	158,240	25,000	49,376	63,230	54,601	31,350	39,825	20,822	1,215,213
Benefits	53,227	53,580	17,130	17,965	13,211	2,989	6,764	14,958	31,388	42,405	7,000	13,825	17,704	15,288	8,778	11,151	5,830	333,193
Supplies	3,000	9,000		100	963	2,500	250	500	895	9,105		400	1,500	1,350	1,100	250		30,913
Equipment	100	3,000	1,000				100	200	1,195	1,105			750					7,450
Equipment Maint		500	200			150		300	2,000	1,500			250	585	200	200		5,885
Travel	3,955	1,000	300	250	700	150	200	300	1,000	5,000		1,000	200	2,500		500		17,055
Education & Training																		
Courses	2,600	1,000		500	750	200	200		1,760	640		1,200	1,000	685	1,150	500		12,185
Membership & Cert	700	500		55	255	35	310		195	605		125	100	320	430			3,630
Publications	200	100		145	185	80	50	400	500	300		200	100	270				2,530
Communications																		
Postage	6,000	9,000		16,000	4,550	50	250	500	825	3,675		2,600	4,000	2,250	9,500	250		59,450
Printing & Publ		100		150,000	6,000	33,000			1,000	1,000		300	300	4,500	23,300			219,700
Reproduction	3,000	1,000		1,116	4,876	332	1,000	200	660	2,540	6,550	500	24,000	1,800	222	400		48,196
Contract Services			24,770	161	1,200	690	2,500	330,000										359,321
Other:																		
AMA Deleg Travel	78,241																	78,241
AMA Del Expense	4,600																	4,600
Leadership Conf	3,220																	3,220
Presidents Expense	2,000																	2,000
Presidents Fund	30,000																	30,000
Maint Supplies			5,020															5,020
Household Supplies			6,300															6,300
Janitorial Supplies			4,200															4,200
Data Processing		10,000																10,000
Auditing		9,000																9,000
Binding				260														260
Awards-JRL				200														200
Slideshows					5,000													5,000
Photography Supplies						1,300												1,300
Celebr & Memorials							3,450											3,450
Dinners	6,000																	6,000
Urine Drug Screen														2,700				2,700
Marketing														5,000				5,000
Evaluations														12,500				12,500
Annual Meeting															68,735			68,735
Semiannual Mtg															10,955			10,955
Workshops & Seminars															16,389			16,389
InterLibrary Loans										9,000								9,000
Medlars										7,800								7,800
Building Files											23,257							23,257
Undistributed																	169,000*	169,000
EXPENSES	386,941	289,136	128,099	258,743	84,873	54,760	39,230	400,779	153,519	242,915	61,807	69,526	113,334	104,349	172,109	53,076	195,652	2,808,848

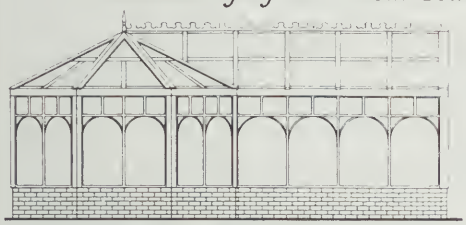
* see p. 795 for additional information on Undistributed Expenses for the 1990 Budget.

1990 Budget

EXPENSES UNDISTRIBUTED

Gas & Electric	60,000
Telephone	40,000
Insurance	30,000
Meeting Expense	9,000
Auxiliary	1,000
FAX Machines	3,000
Parking Expense	14,000
Annapolis Bldg Exp	7,000
Miscellaneous Exp	5,000
TOTAL	169,000

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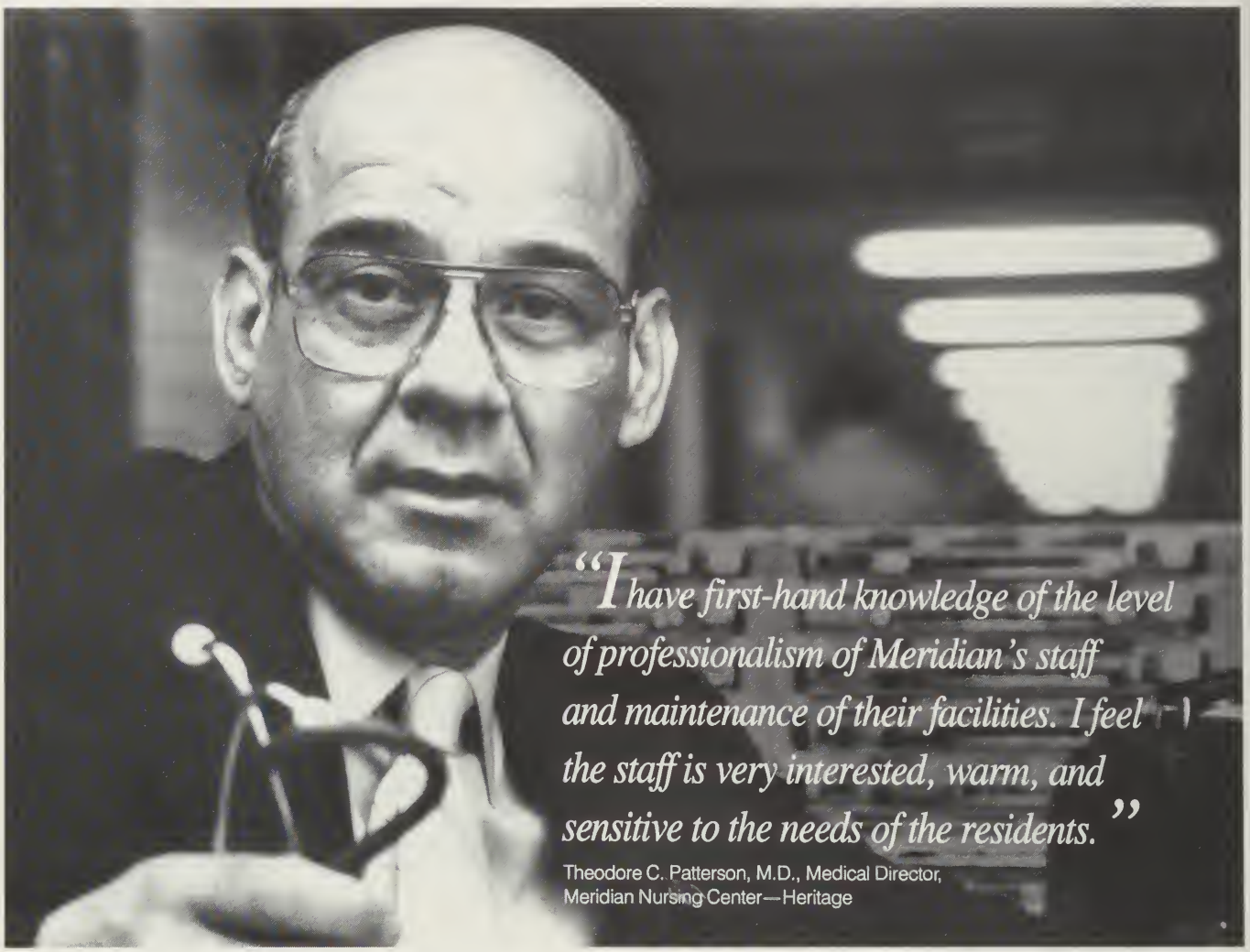
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Doctor, My new job will require more travel with an occasional trip to Europe. Would you give me some guidelines to follow in the management of my diabetes when away from home?

The management of diabetes when vacationing and traveling may be a little difficult, but if one plans ahead and anticipates problems before they occur, the necessary adjustments should be easily accomplished. Some guidelines are:

- Travel in daytime hours as much as possible.
- If passing through "Customs," carry a physician's note stating that you have diabetes and need the syringes and other supplies that you have with you.
- Carry with you at all times the insulin, syringes, blood glucose monitoring equipment, etc. needed for the entire trip in an attaché case or handbag, *and never check as baggage*. Special containers and refrigeration of insulin are not needed unless the travel is for several months. Of course, if refrigeration is readily available it should be utilized.
- Carry small packages of raisins or other carbohydrates in case of need for hypoglycemia.
- Airlines will provide special meals as needed if notified 48 hours in advance of your departure.
- If traveling in the same time zone or the variation is not over two hours per 24 hours, the customary insulin schedule can usually be maintained.
- Duplicate prescriptions for all medications and eyeglasses should be kept on hand, as well as a summary of pertinent medical history.
- An up-to-date diabetes identification card should be carried in your wallet at all times, in addition to an identifying bracelet or necklace.
- If traveling or vacationing with a companion, that person should have a knowledge of the use of glucagon, and one or more units should be with your medical supplies.
- If your diabetes is controlled by an "oral agent" or diet alone, adjustments are usually unnecessary.
- If travel involves over 4-6 time zones in one day, an individualized plan should be constructed based on the time of departure, number of stops or transfers, and arrival time. For lesser travel, the information provided by the Table may be used as a suitable plan.

Table.

Travel Plan	Change In Insulin Dose	Notes
North or South	None	
East or West (1-2 hour difference)	None	Test blood glucose regularly*
East (3-6 hour difference)	For shorter day, decrease insulin by 10-25% (NPH or Lente)	Test blood glucose regularly*
West (3-6 hour difference)	For longer day, increase total insulin by 10-25%. (Primarily regular insulin)	Eat an extra meal on arrival

* Blood glucose testing should be done before each meal, or more frequently if test result is above 150 mg/dl. Supplemental regular insulin, if needed, is difficult to recommend by rote but a rule of thumb would be 2-4 units/50 mg/dl of blood glucose above 150, depending upon the activity of the individual at the time.

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CME Courses: For each course additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (301-328-3956) or by calling the phone number listed under a specific program. FAX 301-328-3103.

August 25

Hormonal Replacement Therapy, Baltimore. Location, fees, credits to be determined. Info: S. Stenhouse 301-328-3956.

September 14

Current Concepts in Ophthalmology: Tenth Annual Clinical Conference, Columbia Inn, Columbia. Includes the Fourth Annual Lois A. Young-Thomas Memorial Lecture. Fee: $60; 6 AMA Cat I credits.

October 6-7

Sixth Annual Contact Lens Symposium, Stouffer Harborplace Hotel, Baltimore. Fee: $165 before September 21; 12 AMA Cat I credits.

December 7-8

Cancer in Minorities, Stouffer Harborplace Hotel, Baltimore. Fee and credits to be determined. Info: S. Stenhouse 301-328-3956.

Continuously Throughout the Year

University of Maryland Dean's Conferences - Held monthly, October through April. Designed for the Family/General Practitioner and Internist. Each conference highlights different clinical Departments placing emphasis on the practical methods being used and researched at the University of Maryland. Extension programs are planned to complement the programs held on the University's Baltimore campus.

Visiting Professor Program - Directory of speakers and topics available for area hospitals and other healthcare organizations. No administrative fee. Info: 301-328-3956.

Visiting Practitioner Preceptorships - Opportunity for physicians to participate in clinical situations in the University of Maryland Medical Systems. Requires approval from clinical department/division heads. Hour-for-hour Cat I credits available. Direct **all** inquiries to CME 301-328-3956.

Departmental Rounds and Conferences - Weekly hands-on and lecture presentations hosted by the University's clinical departments. Hour-for-hour AMA Cat I credits available. Brochure available.

Advanced Trauma Life Support Provider/Instructor Programs sponsored by University of Maryland/MIEMSS. Info: M. Nelson 301-328-2919.

August 16-17 Provider
September 12-14 Instructor
October 18-19 Provider
November 15-16 Provider
December 6-7 Provider

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MISCELLANEOUS MEETINGS

September 20-21	**Second Annual Trauma Conference** Carousel Hotel and Resort, Ocean City, MD. Sponsored by Peninsula General Hospital Medical Center. Fee: $100. Info: Diane Kwiatkowski 301-543-7328.
October 1	**Ocular Plastic Surgery: Current Concepts and Techniques** Sponsored by the Maryland Society of Eye Physicians and Surgeons; Columbia, MD. Information: Terry Slade Young, 11 South Paca Street, Suite 303, Baltimore, MD 21201. (301-328-2399, FAX: 301-328-8514).
October 25-27	**New Techniques and Concepts in Cardiology** Hyatt Regency Hotel, Washington DC. Sponsored by the American College of Cardiology. Info: Registration Secretary, Extramural Programs Department, American College of Cardiology, 9111 Old Georgetown Rd., Bethesda, MD 20814 (1-800-253-4636 or 301-897-5400, ext. 228).

Shady Grove Adventist Hospital, 9901 Medical Center Drive, Rockville, MD. Info: 301-279-6000.

August 2	What's New in Chemical Dependency
August 9	Antibiotic Update
August 16	Evaluation and Management of Metastatic Bone Disease
August 23	Controversial Issues in Thrombolytic Therapy of Acute MI
August 30	Prenatal Genetic Diagnosis: 1990
September 6	Update in Treatment of Liver Disease and Biliary Tract Disease
September 13	Nonsurgical Vascular Surgery: Laser Arteriectomy and Other Things
September 27	Management of the Overdose Patient



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All courses at the Turner Auditorium unless otherwise indicated. Sponsored Continued Education Activities for 1990. Info: Office of Continuing Education, 720 Rutland Ave., Turner Auditorium, Baltimore, MD 21205 (301-955-5880).

September 13-14

Pediatrics for the Practitioner - Update 1990. Fee: physicians $235; residents, retired physicians & allied health professionals $160; 14.5 AMA Cat I credits. Info: J. Ryan 301-955-2959.

October 3-6

Sixteenth Annual Topics in Gastroenterology and Liver Disease, sponsored by The Harvey M. and Lyn P. Meyerhoff Digestive Disease and Inflammatory Bowel Disease Center and Department of Medicine. Fee: physicians $425, residents and fellows $210 (with letter from department chairperson verifying status); 23.5 AMA Cat I credits. Info: 301-955-2959.

October 22-27

Thirty-second Annual Emil Novak Memorial Course: Gynecology, Gynecological Pathology, Endocrinology, and High-Risk Obstetrics. Fee: physicians $650, residents $450 (with letter from department chairperson verifying status); 44.5 AMA Cat I credits. Info: C. Kearney 301-955-2959.

October 30-31

3D Neuroimaging: Theory and Clinical Applications, sponsored by the Department of Radiology and Radiological Sciences, The Johns Hopkins Medical Institutions. Fee: physicians $300, Johns Hopkins staff $200; 16.5 AMA Cat I credits. Info: F. Boling 301-955-2959.

November 1-4

Principles and Practice of MRI, at the Hyatt Regency Baltimore, sponsored by the Department of Radiology, Division of Magnetic Resonance Imaging, The Johns Hopkins Medical Institutions. Fee: physicians $495, residents and fellows $250; 24 AMA Cat I credits. Info: D. Heydinger 301-955-2959.

November 2-3

Progress in Pediatrics, sponsored by the Children's Medical and Surgical Center, The Johns Hopkins Medical Institutions. Fee: physicians $125, residents, fellows and nurse practitioners $75; 11 AMA Cat I credits, 11 PREP credits, other appropriate credit is pending. Info: P. Campbell 301-955-2959.

February - April 1991

Thirty-second Postgraduate Institute for Pathologists in Clinical Cytopathology for Board Certified (or qualified) pathologists as a subspecialty residency. 152 AMA Cat I credits in two courses, both of which must be taken. Application and preregistration is advised ASAP; preregistration must be completed *before March 15, 1991* unless by special arrangement. Info: J. Frost MD or B. Remley, 111 Pathology Building, The Johns Hopkins Hospital, Baltimore, MD 21205 USA (301-955-8594).

February-April Home Study Course A, personal reading and microscopic study at own lab in preparation for Course B. Course A materials will be sent to each participant within the U.S. and Canada for home study. Participants *outside* the U.S. and Canada must make arrangements to study Course A before Course B. *The entire course is given in English.*

April 14-April 25 In-Residence Course B, lecture series, laboratory, and clinical experience at the Johns Hopkins Medical Institutions, Baltimore.

Continuously Throughout the Year

Ophthalmic Electrophysiology Technician Training Course (ongoing 1-week course by appointment). The Wilmer Eye Institute, Baltimore. Info: C. Kearney.

The Department of Radiology and Radiological Sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams 301-955-3169.

Visiting Physicians - offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. Fee: $500; 40 AMA Cat I credits.

Johns Hopkins Medical Grand Rounds - Accredited audiovisual continuing education series of case discussion for clinicians; 30 topics/year in 5 bimonthly programs. Individual and group subscriptions; 40 AMA Cat I credits. Info: 301-955-3988.

Microsurgery Training at The Johns Hopkins Hospital, one week, offered continuously throughout the year. 40 AMA Cat I credits. Info: P. Williams 301-955-3169.

President's Inaugural Address

On May 11, 1990, during Med Chi's Annual Meeting, Med Chi President, Reynaldo L. Lee-Llacer MD, delivered the following Inaugural Address to the Members of the House of Delegates:

During the past few years, while serving as Chairman of the Council and President-Elect, I have had the privilege of visiting almost all county medical societies within our State. I have heard many philosophies from my colleagues about the future of medicine, some very positive and others somewhat less than positive.

These mixed feelings held by many of you here today, gave me much to consider as I prepared to assume the office of President of the Faculty, an office cloaked in the accomplishments of so many learned, loyal and committed leaders of medicine.

Only a few years ago, the winds of despair were blowing--despair for physicians caused by increases in malpractice insurance premiums of 20, 30 and even 40 percent. These winds of despair caused many of my friends and yours, obstetricians and others, to abandon that practice of medicine which they loved so very much. These same winds of despair affected others around the world; those in Eastern Europe, Central America, the Middle East, China, and South Africa to name a few.

During the past year, the winds of change have brought walls tumbling down, great taboos have been shattered, the unthinkable is becoming very real.

Would any of us have thought a year ago that there would be a united Germany, that small countries like Lithuania and Latvia would have voted for their independence? That Nelson Mandela, a man thought to be imprisoned for life, would have been given his freedom? That the Berlin Wall would have been torn down?

The winds of change have caused these events to take place and it all started with a single idea in the mind of one person, then two and then 200 and more; then the people acted on this idea causing these remarkable events to occur. And the unthinkable a few short years ago is now real. These changes are occurring because someone was willing to take a risk, to tear down the wall, to shatter the taboos, to dedicate himself to medicine.

For the past few years we have experienced reductions in our malpractice premiums, and we should expect to experience a great many more changes brought to us by the winds of hope.

I hope as we leave this meeting, we will be convinced that life as a physician is not as bad as it has been portrayed and that necessary change can and will occur. This is not to say that we don't have problems, because we do; but most of our problems can be attributed right back to us - you and me. How did you treat the last patient you saw yesterday? Would you be comfortable if that last patient was a member of the jury tomorrow, judging you in a malpractice suit? Would that last patient be willing to call his or her state senator or delegate and ask that the legislature vote "yes" for a particular bill that would reduce barriers to good sound doctor-patient relationships?



Reynaldo Lee-Llacer MD awaits his inauguration on Friday, May 11, 1990.

We in this room are the profession of medicine in Maryland, along with your colleagues who are right now in emergency rooms, surgical suites, clinics and offices caring for people as we speak, caring for 150,000 patients per day in Maryland.

We doctors must create our own winds of hope and maybe we can count on those 150,000 patients we care for each day to be a part of those winds of change.

As we look forward to the challenges of the new decade, let us remember that we not only live in a time where anything is possible but that the possibilities range beyond what we can imagine, that our problems today will make us stronger tomorrow and that whatever our problems, whatever our uncertainties, medicine is still the most exciting and rewarding profession there is. With your help, I shall do my very best to find solutions to our mutual challenges.

Thank you. ■



Wayne C. Spiggle MD (c) and Mrs. Helen Spiggle (l) accept the A. H. Robins Award from President Raymond M. Atkins MD (r).

1990 A.H. Robins Award

On May 9, 1990, Wayne C. Spiggle MD of Cumberland, MD received the 1990 A.H. Robins Award for Community Service. In a recent letter sent to Med Chi's Past President Raymond M. Atkins MD, Dr. Spiggle wrote the following comments regarding his award:

> Thank you for the 1990 A.H. Robins Award for Community Service in Maryland. It represents a high honor and is symbolic of what many physicians throughout Maryland are doing in their community.
>
> I feel that this award really belongs to the Allegany County Medical Society. Many of the activities which prompted this award have been accomplished through the active support and involvement of our local medical community. I thank them for a willing involvement in the affairs of our community, not only through Allegany Health Right, a recently established program to care for the gray area patients, but also for the ACCESS program, a program designed to accommodate Medicaid patients and for our involvement in disaster relief, community health education and many other activities. The Allegany County Medical Society truly considers the community as its patient.
>
> I know other Medical Societies are doing this as well, but my personal recognition at the last Med Chi meeting is incomplete without acknowledging the collegiality which has become our hallmark.
>
> The Allegany Health Right Program is attracting a lot of excitement, so I want to give special thanks to Governor William Donald Schaefer, who worked closely with Delegate Cas Taylor, the county delegation and county commissioners to provide initial funding to make the Allegany Health Right a reality. Governor Schaefer's "do it now" attitude and his willingness to work with us to better serve the public should be applauded by all Maryland physicians.
>
> Yours Truly,
> Wayne C. Spiggle MD ■

Physician Placement Services

The Medical and Chirurgical Faculty of Maryland maintains a Placement Service for the convenience of Maryland physicians, hospitals, and communities in search of candidates for positions available in our state. A detailed description of such opportunities should be forwarded to:

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Physicians wishing to locate in Maryland are invited to submit a resume to be kept on file with the *Physician Placement Service*. Candidates are requested to inform the Faculty when they are no longer available for consideration for opportunities in Maryland.

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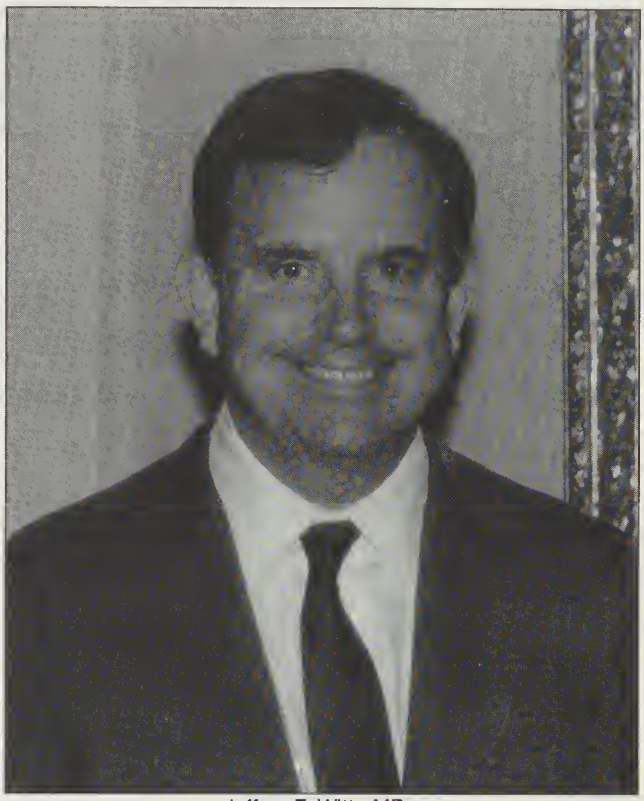
Jeffrey F. Witte MD assumed the Presidency of the Montgomery County Medical Society (MCMS) on May 11, 1990.

Dr. Witte, an orthopaedic surgeon from Rockville, MD, graduated from Georgetown University and the University of Michigan Medical School. Since completing an orthopaedic residency at George Washington University Medical Center, he has been in private practice in the Rockville-Gaithersburg area with Shady Grove Orthopaedic Associates. He served as an orthopaedic surgeon in Viet Nam at both the 8th Field and 17th Field Hospitals for which he received multiple awards, including the Bronze Star.

No newcomer to medical leadership, Dr. Witte undertakes the highest office in the MCMS after holding a number of offices in the Society and at Shady Grove Adventist Hospital where he is immediate Past-Chairman of the Department of Surgery. He is Past-President of the Washington Orthopaedic Society and a member of the faculty at George Washington University Medical Center. He is board certified in orthopaedic surgery and a member of the American Academy of Orthopaedic Surgeons.

During his Presidency, Dr. Witte intends "to participate in decisions regarding medical care for the uninsured and underinsured, and to assure that *quality* is maintained in the care that is given."

Other MCMS officers are *Herman Maganzini MD*, President-Elect; *Cheryl Winchell MD*, Immediate Past President; *Fred A. Gill MD*, Secretary; *William W. Mullins MD*, Treasurer.



Jeffrey F. Witte MD

■ ■ ■

On May 19, *Lee E. Gresser MD* was installed as President of the Maryland Academy of Family Physicians (MAFP) during the organization's 42nd Annual Meeting and Scientific Session at the Sheraton Ocean City Resort and Conference Center. A graduate of the University of Maryland Medical School, Dr. Gresser is a Diplomate (board certified) of the American Board of Family Practice and a Charter Fellow of the American Academy of Family Physicians.

Other MAFP officers inducted were *Joshua R. Mitchell, III MD* as President-Elect; *Joseph P. Connelly, Jr. MD* as Secretary; and *John B. Littleton MD* and *Abdul Nayeem MD* as Vice-Presidents.

■ ■ ■

John E. Hoopes MD, who directed expansion of the Division of Plastic Surgery at The Johns Hopkins Medical Institutions over the last 20 years, retired on June 30, 1990.

A 1957 graduate of the Hopkins School of Medicine, Hoopes became Professor and Chairman of the Plastic Surgery Division at Hopkins in 1970 after being head of that specialty at the Washington University School of Medicine for two years.

Under Hoopes' direction, the plastic surgery training program at Johns Hopkins was increased from two residents for two years to three residents for three years. Also, a 25-member, part-time faculty was recruited to augment the training program.

Hoopes also forged a pioneering plastic surgery residency training program involving the Hopkins School of Medicine, the University of Maryland School of Medicine and Baltimore's Veterans Administration Hospital.

Hoopes is currently president of the American Association of Plastic Surgeons. In addition to affiliation with numerous plastic surgery and specialty-publishing organizations and their boards, he has served as Chairman of the Advisory Council for Plastic and Maxillofacial Surgery of the American College of Surgeons since 1987.

Hoopes is co-editor of the *Journal of Plastic and Reconstructive Surgery*. He has published 160 scientific papers, more than 50 book chapters and has been co-editor of three books. He is a resident of Gibson Island, MD. ■

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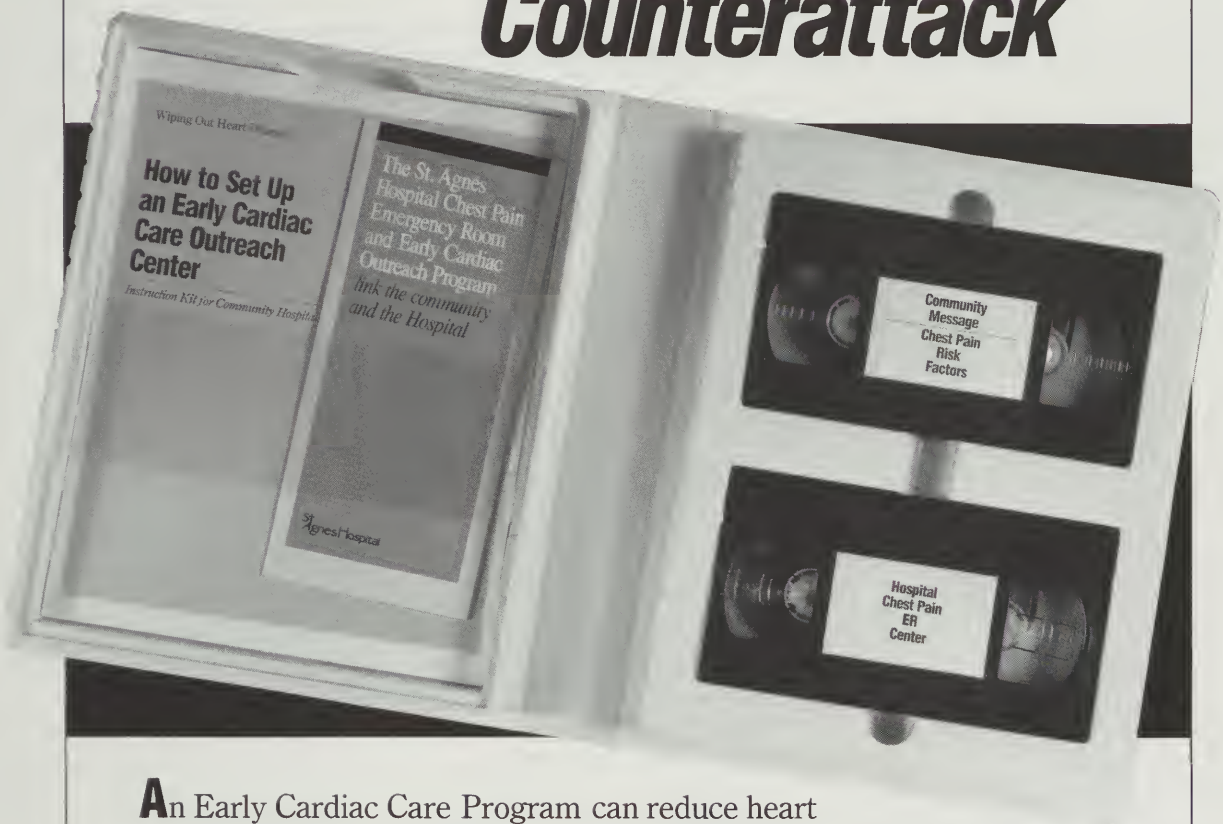
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__Abortion
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__Alternate Delivery Systems
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__Back & Neck Problems
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__Dermatology
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__Drug & Alcohol Abuse
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__Ethical Issues In Medicine
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__Family Life Issues/Parents
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__Fractured & Broken Bones
__Future of Medicine

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__Holistic Health
__Home Health Care
__Homosexuality
__Hospice
__How to Select a Physician
__Human Sexuality
__Hyperactivity
__Hypnosis
__Hypoglycemia
__Hysterectomy

__Immunizations
__Infertility
__Internal Medicine

__Kidney & Urinary Tract

__Lasers in Medicine
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__Leukemia
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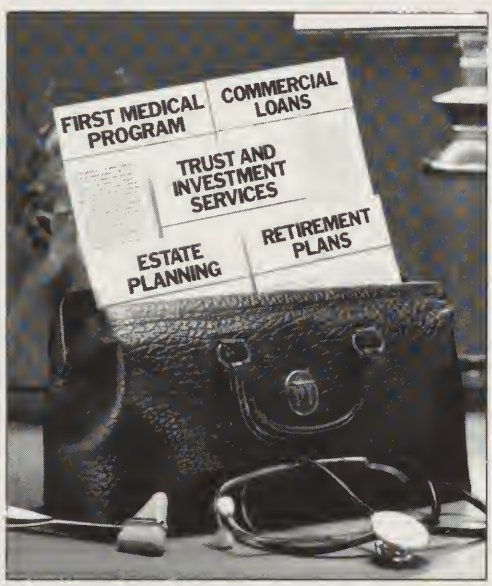
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8:00am-8:30am **REGISTRATION**
(continental breakfast)

8:30am-8:45am **DAY 2 SCHEDULE REVIEW**
Dr. Nelson Goodman, M.D., Chairman, MED CHI Committee on Drugs

8:45am-9:15am **PSYCHOMIMETIC AND NEUROTOXIC EFFECTS OF AMPHETAMINES AND RELATED DESIGNER DRUGS**
Errol B. De Souza, Ph.D., former Chief, Neurobiology Laboratory, National Institute on Drug Abuse, Addiction Research Center
An examination of the pharmacology and toxicology of amphetamines and related designer drugs in light of the recent increase in the abuse of these drugs.

9:15am-9:30am **BREAK**

9:30am-10:00am **TREATMENT OF COCAINE ABUSE**
David A. Gorelick, M.D., Ph.D., Addiction Research Center, National Institute on Drug Abuse
A brief overview of cocaine abuse from an epidemiological and pharmacological perspective. Current treatment approaches and where ongoing research may lead to improved treatment modalities.

10:00am-10:30am **AIDS AND COCAINE USE**
Roy W. Pickens, Ph.D., Director, Addiction Research Center, National Institute on Drug Abuse
An examination of how intravenous and non-intravenous drug abuse contribute to the AIDS problem, with particular attention paid to cocaine and "crack" cocaine abuse. Also, possible strategies for preventing the spread of HIV infection.

10:30am-10:45am **BREAK**

10:45am-11:15am **PREGNANCY AND COCAINE USE**
Mary E. McCaul, Ph.D., Alcoholism Treatment Unit, Francis Scott Key Medical Center
An overview of the prevalence, and consequences (fetal, neonatal, maternal) of cocaine abuse.

11:15am-12:00pm **COCAINE PANEL DISCUSSION** (Questions & Answers)
Errol B. De Souza, Ph.D., David A. Gorelick, M.D., Ph.D., Roy W. Pickens, Ph.D. and Mary E. McCaul, Ph.D.

12:00pm **ADJOURNMENT**

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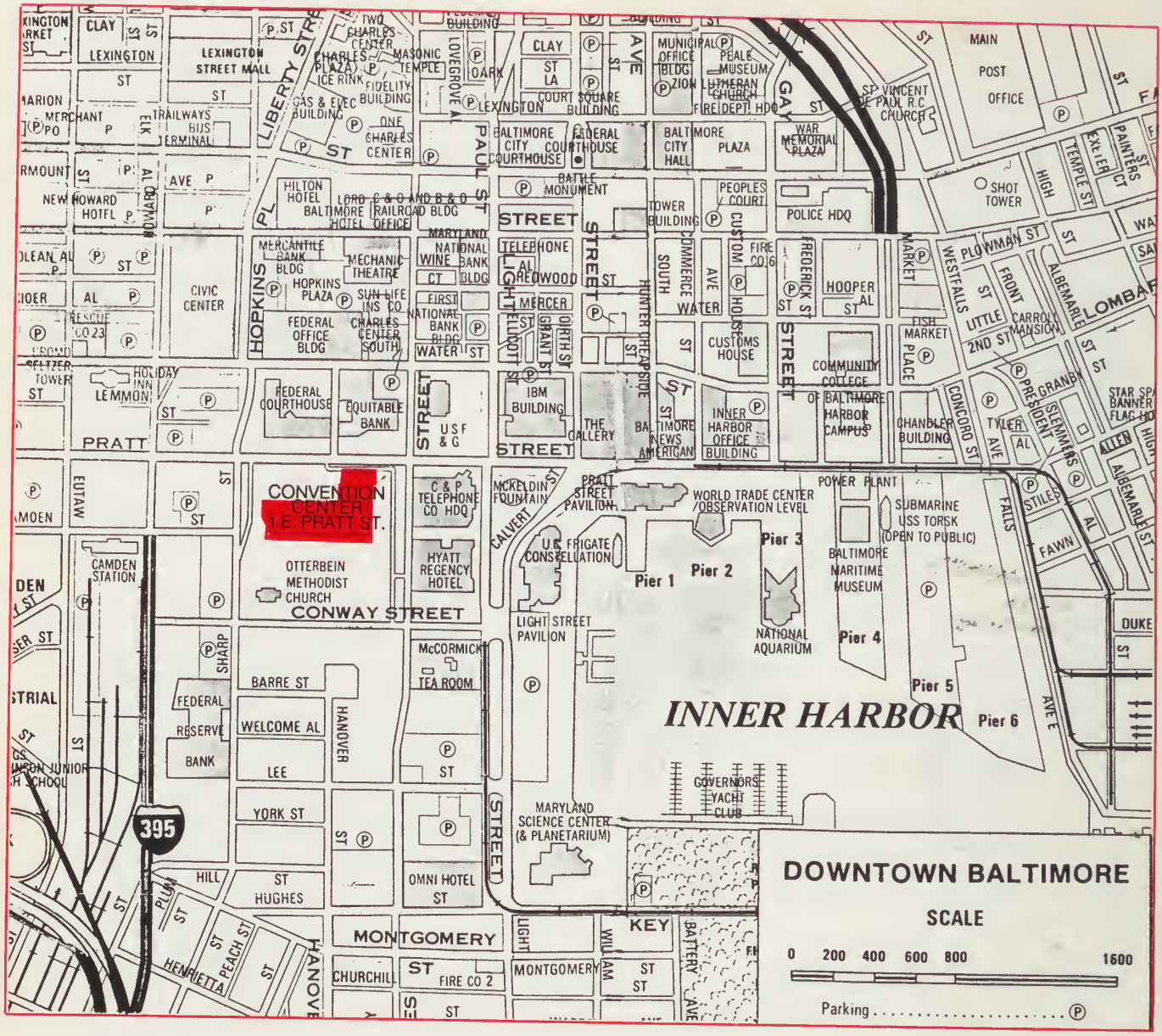
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Venomous Snakes in Maryland: The Copperhead

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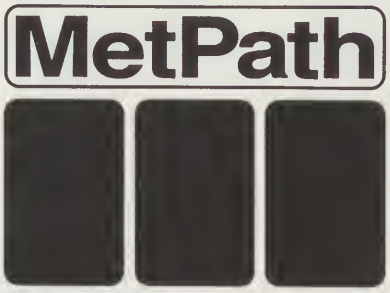
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MMJ
Maryland Medical Journal

SEPTEMBER 1990 VOLUME 39 NO 9

ARTICLES

Nearing the end of another long Maryland summer when many people spend as much time as possible enjoying favorite outdoor activities, we present three articles dealing with situations typically encountered during this season.

Drs. Barry S. Gold and Robert A. Barish discuss current concepts in diagnosis, treatment, and management of bites from venomous snakes indigenous to Maryland.

Dr. Mary Wagner warns that drowning is the second leading cause of accidental death in children under 14 years old. By definition, "drowning" results in death; Dr. Wagner focuses on the treatment and prognosis of near-drowning victims as well as prevention.

Finally, we present excerpts from a 1989 NIH Consensus Statement on sunlight, ultraviolet radiation, and the skin.

Venomous Snakebites 833
Barry S. Gold MD and Robert A. Barish MD
As the incidence of snakebites increases, physicians need to be able to recognize venomous bites and to be familiar with current concepts in diagnosis, treatment, and management of snake envenomation.

Near-drowning Accidents Among Children 847
Mary H. Wagner MD
Water-related activities are a source of family fun and exercise, but everyone needs to be aware of the potential hazard of drowning and near-drowning.

Sunlight, Ultraviolet Radiation, and the Skin
Excerpts: NIH Consensus Statement 851
Sunlight, the ultimate source of energy, is vitally important to life, but there is overwhelming evidence that exposure to natural or artificial ultraviolet radiation (UVR) has the potential for causing acute and chronic adverse effects on the skin.

Case Report: Thoracic Spine Schwannoma: The Role of Gd-DTPA Enhanced MRI 853
James S. Lim MD, Henry Wang MD, John Griffin MD, and Donlin M. Long MD, PhD
With the advent of MRI, spinal lesions can now be evaluated noninvasively. Knowing the location of the spinal lesion, its morphology and signal characteristics can narrow the differential diagnosis.

Centralized Credentialing: State-of-the-Art Confidential Clearinghouse 857
Joseph E. Jensen
In Maryland, a single organization serves as a clearinghouse for gathering and making available to hospitals those documents needed to verify a physician's credentials.

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Manuscripts must be original typed copy, double spaced throughout (including text, case reports, legends, tables, and references) with pages numbered consecutively. Along with manuscripts, please send an IBM-compatible floppy disk, with the document entered in a Word Perfect. Multimate, or Wordstar program.

Include full name of author(s) with highest degree, academic and professional titles, affiliations, and any institutional or other credits.

Tables with brief descriptive titles are to be typed on separate sheets of paper and numbered. The Editor reserves the right to edit tables. Statistics must be consistent in both tables and text.

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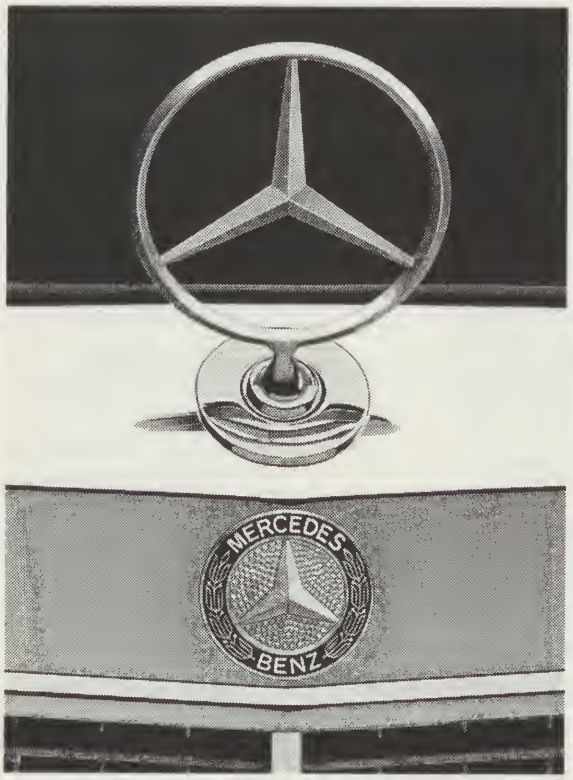
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September 1990

Selected Communicable Diseases in Maryland in 1989 (Continued)

MUMPS (625)

13.4/100,000 (U.S. 2.6/100,000)

The number of reported cases of mumps in 1989 was at a ten year high (Figure 13). Six outbreaks in schools and colleges explain most of the 3-fold increase from 1988. The highest rate in the State (50.1/100,000) was in St. Mary's County where 3 outbreaks occurred. Other counties with high number of cases and high incidence rates (of approximately 35/100,000) were Carroll County (43 cases) and Prince George's County (251 cases). In Anne Arundel County a single large outbreak in April and May contributed to the rate of 34.1/100,000.

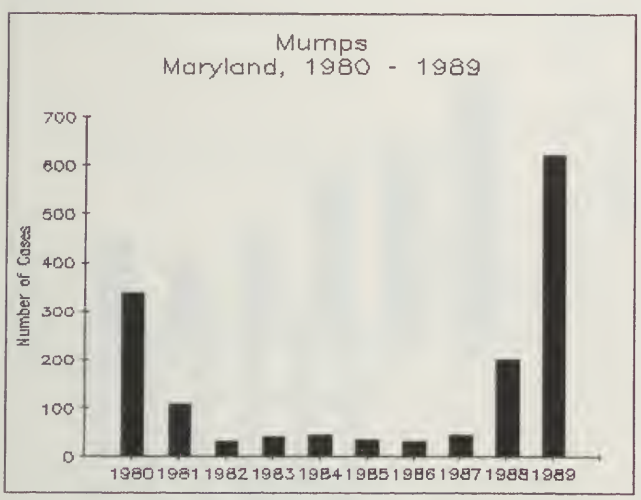


Figure 13

Overall, the month-by-month trend in 1989 showed 2 peaks - one in the late spring and one in late autumn . The highest incidence rate was observed among individuals 15 to 19 and 10 to 14 years of age (Figure 14). These 2 groups comprised 73.4% of all cases. Only 11.5% were 5 to 9 years of age. No cases were reported in persons over 50 years of age. The male to female ratio was 1.5 to 1.0. Thirty-four percent were white, 33.0% were black and in 28.6% race was not reported. Only 5.5% of cases were laboratory confirmed.

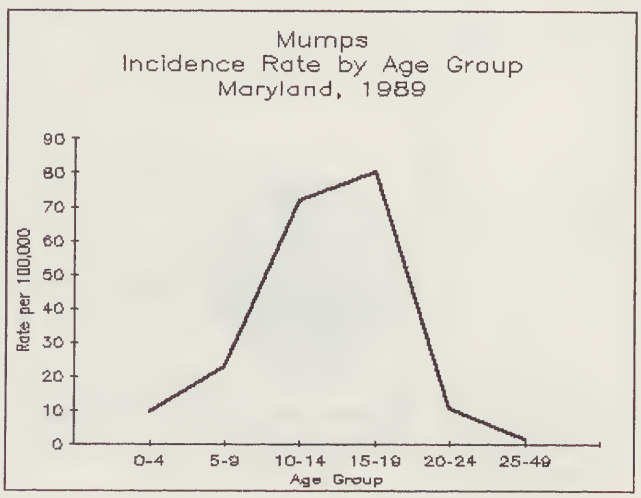


Figure 14

PERTUSSIS (96)

2.1/100,000 (U.S. 1.5/100,000)

The incidence of pertussis almost doubled in 1989 as compared to 1988. The cases were sporadic or confined to family members. No outbreaks were reported. The number of cases by county is shown in Table 1 (see July, 1990 issue). Pertussis was reported in patients ranging in age between 1 month and 48 years; 73 (76.0%) were less than 9 years and 34 (35.4%) were less than 1. The age specific incidence rates are shown in Figure 15. The male to female ratio was 0.7:1.0.

Fifty-six patients (58.3%) became ill in the summer with peak incidence in August.

Forty-four (45.8%) cases were laboratory confirmed: 10 (10.4%) by DFA only, 18 (19.0%) by culture only, and 16 (17.0%) by both culture and DFA.

Cough occurred in all cases. The following symptoms were also reported: paroxysmal cough in 88 (92.0%), upper respiratory symptoms in 79 (82.3%), post-tussive vomiting in 62 (65.0%), cyanosis in 32 (33.3%), and apnea in 29 (30.2%) of the patients. Pneumonia was the most frequent complication and was reported in 14 (15.0%) of the patients. Two (2.1%) had seizures, and one (1.0%) encephalopathy. Thirty-six (37.5%) patients were hospitalized for an average of 5 days. Fifty patients (52.1%) had had less than 3 doses of DTP vaccine.

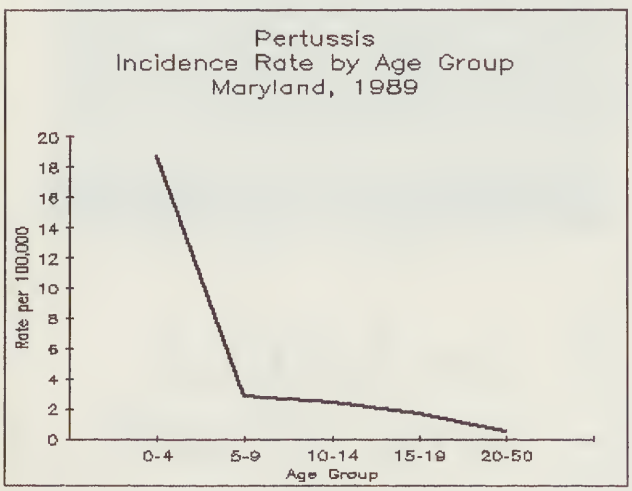


Figure 15

Of 55 cases age 6 months through 18 years of age, only 20 (36.3%) were appropriately vaccinated for their age, according to current pertussis vaccine recommendations.

ANIMAL RABIES (389)

The trend of decline since 1984 of animal rabies was disrupted in 1989 by a 15.1% increase of laboratory confirmed rabid animals (Figure 16). The cases by jurisdiction are presented in Table 1 (see July, 1990 issue). The Mid-Atlantic raccoon rabies epizootic, that started in 1977 in West Virginia and spread to Allegany County in 1981, has been advancing at approximately 25 miles per year. In 1989 rabies was reported in Kent County despite the efforts of the Delmarva Rabies Initiative to create an "immune barrier" in Cecil County and New Castle County, Delaware. (The project was designed to halt the spread of rabies to the Eastern Shore by vaccinating raccoons in a 5 mile area south of the Chesapeake and Delaware Canal).

The epizootic cycle has been maintained by raccoons which accounted for 75.8% of the rabid animals in 1989 (Table 2). Rabies in bats which has been epidemic in Maryland for many years is epidemiologically and antigenically distinct from rabies in tetrapods (four-footed animals).

Table 2 Animal Rabies
Maryland, 1989

SPECIES	No.	%
BAT	26	6.7
CAT	16	4.1
DOG	2	0.5
FOX	23	5.9
RAC	295	75.8
SKU	19	4.9
OTH	8*	2.1
TOTAL	389	100.0

* 3 equine, 4 groundhog, 1 sheep

The last two human cases of rabies in Maryland were reported in 1976 and 1945.

Hundreds of people have received post-exposure rabies prophylaxis following known or potential rabies exposure, this preventing the development of human rabies.

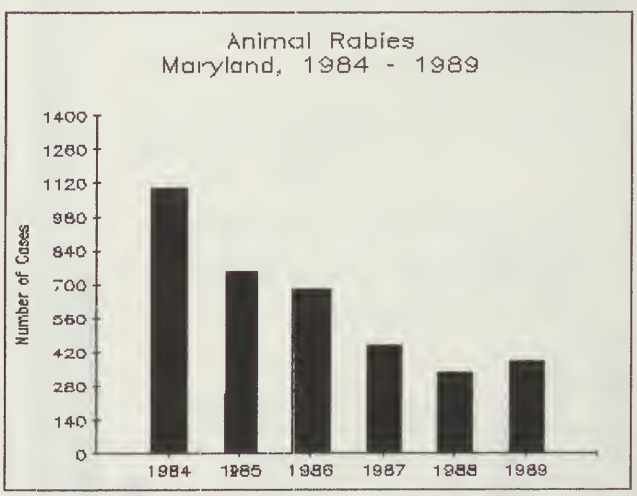


Figure 16

ROCKY MOUNTAIN SPOTTED FEVER(19)

0.4/100,000 (U.S. 0.3/100,000)

The incidence of RMSF continued to decline for the second consecutive year (Table 1; see July, 1990 issue). In 1989, 63% of the cases were residents of Talbot (with highest number of cases and highest rate per 100,000), Anne Arundel and Dorchester counties. Onset of illness was reported from April to September; eight cases (42.1%) occurred in June.

The male to female ratio was 1.7 to 1.0; the white to black ratio was 3.5:1.0 (the race of one case was not known). The patients' age ranged from 6 to 73 years (median 35 years).

Almost 90% had fever and headache, 9 had rash (7 of which had rash on the soles and/or palms). Hospitalization was required for 12 (63.2%) of the patients. All but one, for whom information was not available, were treated with tetracycline or chloramphemicol. None died.

Fourteen (73.7%) of the cases were confirmed with IFA tests (4-fold rise of titers or with single 1:64 titer), 2 were probable cases (one had a single IFA 1:128 titer, and the other - Proteus 0X2 1:320), and 3 were not confirmed (convalescent blood was not tested).

Within 14 days of the onset of the illness, eleven patients (58.0%) had tick bite(s), 6 had visited tick infested areas, and 2 individuals reported no known exposure to ticks.

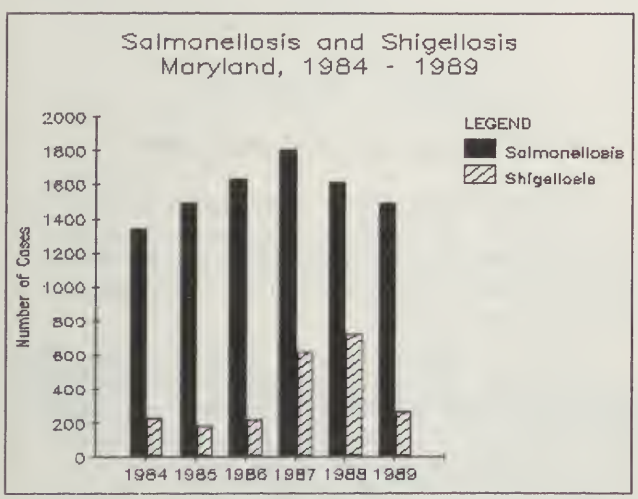


Figure 17

SALMONELLOSIS (1495)

32.0/100,000 (U.S. Not Available)

The decrease of salmonellosis noted in 1988 continued in 1989. Figure 17 shows the reported cases over the past 6 years. The number of cases by county is presented in Table 1 (see July, 1990 issue). Morbidity was at its highest (43.0% of all cases) in June through August; an additional 24.1% occurred in September through November. Children, less than 5 years of age accounted for 28.4% of the cases; of these, more than half were less than 1 year of age. Individuals between 20 and 39 years of age comprised 26.3% of the cases. The male to female ratio was 1.0:1.0. The white to black ratio, for the cases with known race (1276) was 1.9:1.0.

Fifteen outbreaks were reported; 9 were foodborne, and the rest, undetermined. Serotypes of reported isolates are depicted in Figure 18 .

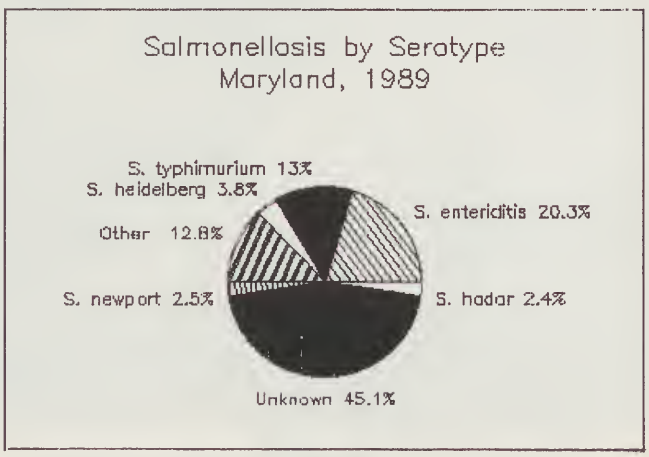


Figure 18

SHIGELLOSIS (276)

5.9/100,000 (U.S. Not Available)

After 2 years of high incidence, shigellosis decreased by 62.5% from 1988 (Figure 17). The highest rates per 100,000 population were noted in Washington (17.9), and Howard (14.2) counties; the highest number of cases (70) was reported in Baltimore City, followed by Montgomery County (43). The cases by county are presented in Table 1 (see July, 1990 issue). The male to female ratio was 0.8 to 1.0. More than a quarter (26.4%) of the patients were less than 5 years of age; an additional 20.0% were 20 to 29 years old.

The most prevalent serogroup was S. sonnei (72.8%), followed by S. flexneri (11.2%), S. boydii (1.4%) and S. dysenteriae (1.1%); the serogroup of 13.5% of the isolates was not available. Two outbreaks of shigellosis sonnei were reported in

January and February. The latter one occurred in a day care centerwith person to person spread.

SYPHILIS, PRIMARY AND SECONDARY (799)

17.1/100,000 (U.S. 17.2/100,000)

The increase from 1988 of primary and secondary (P&S) syphilis continued throughout 1989 and the number of reported cases rose by 56% (Figure

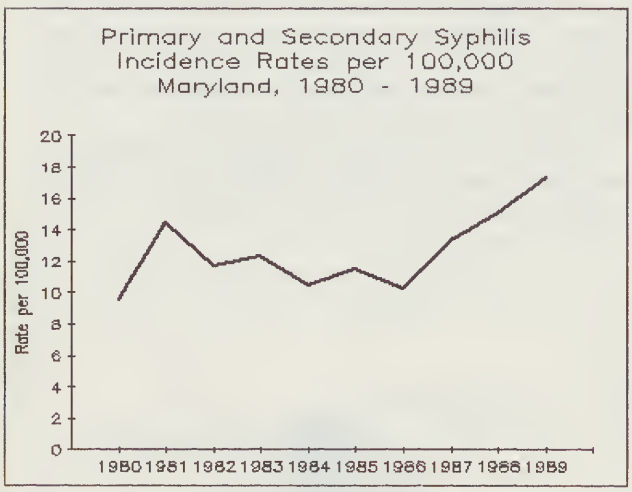


Figure 19

19). Early syphilis, which includes primary, secondary and early latent, was up over 70% from 1988. The cases by year for 1985 through 1989, as well as the reported cases by county for 1989 are presented in Table 1 (see July, 1990 issue).

More than half (50.9%) of all P&S cases were reported by Prince George's County; two zip code areas which border Washington, D.C. (NE and SE) were responsible for 25% of the early syphilis morbidity in Maryland. (These areas also lead the State in the number of teenage pregnancies, and have high HIV seropositive rates).

The male to female ratio was 1.3 to 1.0. More than 25% of the patients were 25 to 29 years of age. Blacks represented 66.0% of the cases.

As the sexual perference of reported early syphilis cases changed from homosexual to heterosexual (believed, to be due to safer sex practices in the gay community), the number of reported congenital syphilis cases increased dramatically. More than 65 pregnant women with syphilis were reported, and 29 of them delivered babies with congenital syphilis. Five of these babies were stillborn; four of the five mothers received no prenatal care, and the one who did, waited until her 6th month to do so.

TUBERCULOSIS (404)

8.7/100,000 (U.S. 8.7/100,000)

A 13.3% decrease from 1988 was reported in 1989. Five counties (Dorchester, Montgomery, Prince George's, Queen Anne's and Wicomico) and Baltimore City showed rates per 100,000 population above the rational rate.

The distribution of the cases by age groups is illustrated in Figure 21). The mean and median ages were respectively 47.9 and 47.0 years. The male to female ratio was 1.5:1.0 (the sex of 4 patients was not specified). The white to nonwhite ratio was 0.5:1.0.

A match of the tuberculosis and AIDS registries for 1989 disclosed 26 (6.4%) of the TB cases had AIDS.

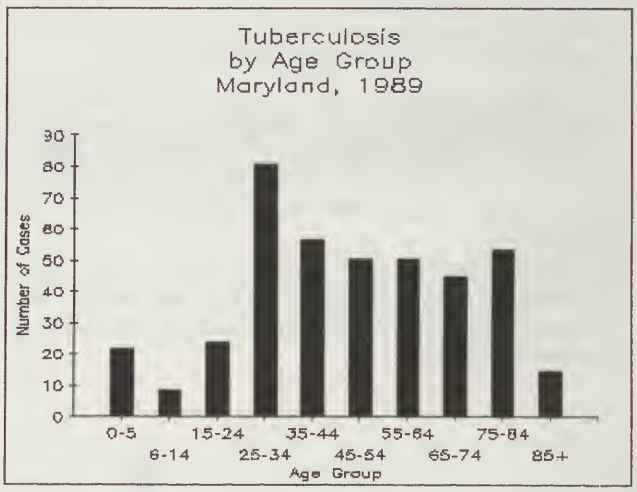


Figure 20

TYPHOID FEVER (12)

0.3/100,000 (U. S. 0.2/100,000)

Reported typhoid fever cases doubled in 1989 as compared to 1988. The cases occurred throughout the year in Montgomery (8), Baltimore (2) and Prince George's counties. The male to female ratio was 0.7:1.0.

The age ranged between 11 months and 25 years (median 25 years). All infections were imported from India (4), Korea (1), Central (2) and South America (3) and Africa (2). These include an 11 month old baby who was exposed to her Ghanaian baby-sitter, and a 5 year old boy who was exposed to his Indian mother. Both the baby-sitter and the mother were documented to be carriers of S. typhi.

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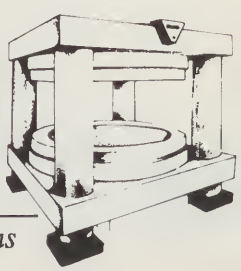


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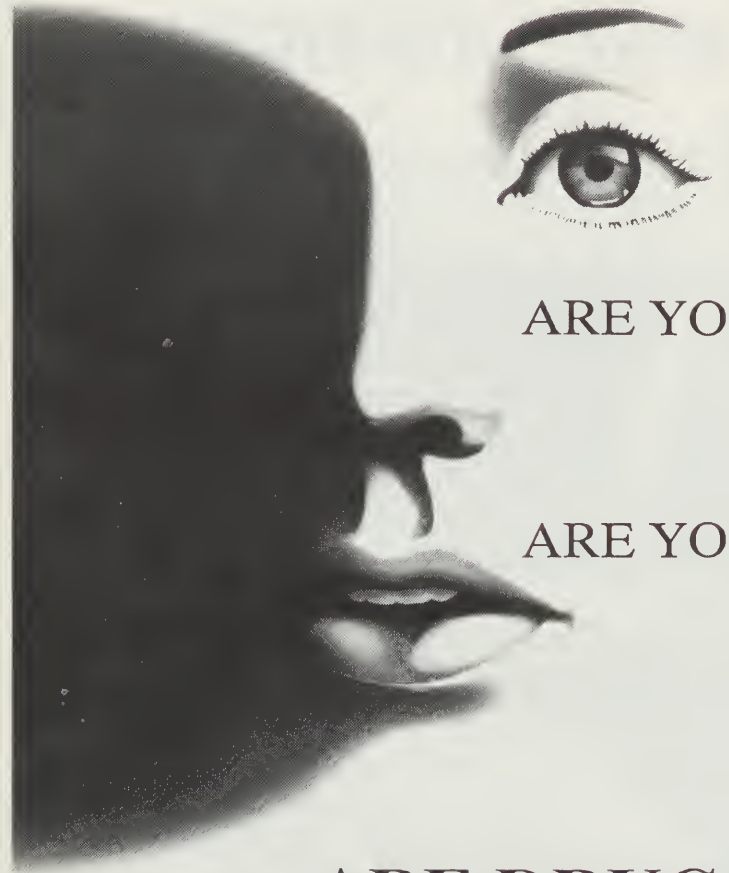
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Adjuvant Therapy for Carcinoma of the Colon

Adjuvant therapy is a therapeutic modality initiated within four weeks of potentially curative surgery in patients at high risk of recurrence or metastases such as those with Dukes' B or C carcinomas. Recent evidence from a number of clinical trials indicates that adjuvant chemotherapy for colorectal cancer has altered the natural history of the disease, resulting in a prolongation of the disease-free survival and overall survival.

Between 1977 and 1983, 1,166 patients with Dukes' B and C carcinoma of the colon were randomized in NSABP Protocol C-01 to receive (1) no further treatment following curative resection, (2) chemotherapy in the form of Methyl-CCNU + 5-FU + vincristine, or (3) nonspecific immune stimulation by BCG. At 92 months of follow-up, there is a statistically significant advantage in disease-free survival for those patients who received adjuvant chemotherapy when compared to the untreated control ($P = 0.03$). This difference also was noted in overall survival, which was statistically significant with $P = 0.04$.[1] Similarly, the efficacy of chemotherapy in the adjuvant setting has been documented in patients with carcinoma of the rectum, both in the NSABP studies (Protocol R0-1) and the Gastrointestinal Tumor Study group with added postoperative irradiation.

In the same time, preclinical pharmacologic interactions predicted increased efficiency of 5-FU with the addition of leucovorin. At Roswell Park Memorial Institute, a prospective controlled randomized clinical trial confirmed that high-dose leucovorin with 5-FU has a much higher response rate in patients with metastatic colorectal cancer.[2] The gastrointestinal toxicity, mainly in the form of severe diarrhea, is a serious side effect for patients receiving leucovorin modulated 5-FU, especially during the first course. Failure to modify doses or failure to provide IV supportive care, can result in fatal gastrointestinal/renal toxicity.

Furthermore, between 1978 and 1984, 408 patients with Dukes' B and C carcinoma of the colon (with the exception of 7 percent who had rectal lesions) were studied by the North Central Cancer Treatment Group (NCCTG) Protocol 78-4852. They were randomized postoperatively to receive (1) no further treatment (control), (2) levamisole, (3) or levamisole + 5-FU. After eight years of follow-up, both study arms of levamisole alone and 5-FU + levamisole have demonstrated superior disease-free survival, compared to the untreated control. There is significant survival advantage especially in the Dukes' C group who were treated with 5-FU + levamisole. An intergroup study (INT0035), initiated in January 1985 accessed over 1,200 patients and confirmed the results from the previous study.

Viewed cumulatively, the data thus far indicate that adjuvant chemotherapy is of benefit in patients with Dukes' B and C carcinoma of the colon and that the addition of levamisole to 5-FU has provided a significant advantage relative to disease-free survival. Therefore, it is compelling to assess whether the addition of levamisole to the leucovorin-modulated 5-FU regimen would provide an additional benefit. Such a study should also determine whether leucovorin-modulated 5-FU used alone would be superior to 5-FU + levamisole (a regimen attractive for its case administration, acceptable toxicity, and relatively low cost).

Based on the above facts, the NSABP established protocol C-04 in which patients who have undergone curative resection of Dukes' B or C carcinoma of the colon are randomized to receive one of three treatment options: (1) 5-FU+leucovorin, (2) 5-FU + levamisole, (3) 5-FU+leucovorin+levamisole. This study is open for patient accrual.

At the University of Maryland call E. George Elias MD, 301-328-5224; at Mercy Hospital Center call Marvin J. Feldman MD, 301-783-5858; at Harbor Hospital Center call Russell DeLuca MD, 301-347-3386; in the Cumberland area call John Mehanna MD, 301-724-5112; and in the Hagerstown area call Frederic Kass MD, 301-733-8600.

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References

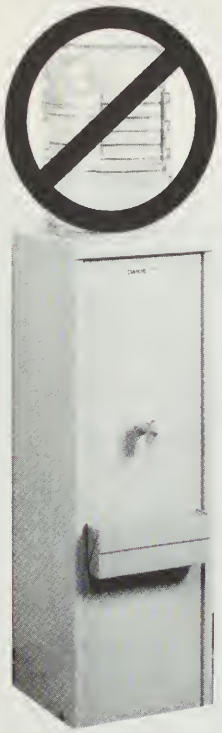
1. Wolmark N, Fisher B, Rockette H et al. Postoperative adjuvant chemotherapy or BCG for colon cancer: Results from NSABP Protocol C-01. JNCI 1988;80:30-37.

2. Petrelli N, Stablein D, Brukner H et al. A prospective randomized phase III trial of 5-fluorouracil versus 5-FU + high dose leucovorin versus 5-FU + low dose leucovorin in patients with metastatic colorectal adenocarcinoma. A report of Gastrointestinal Tumor Study Group. Proc Am Soc Clin Oncol 1988;7:357. ■

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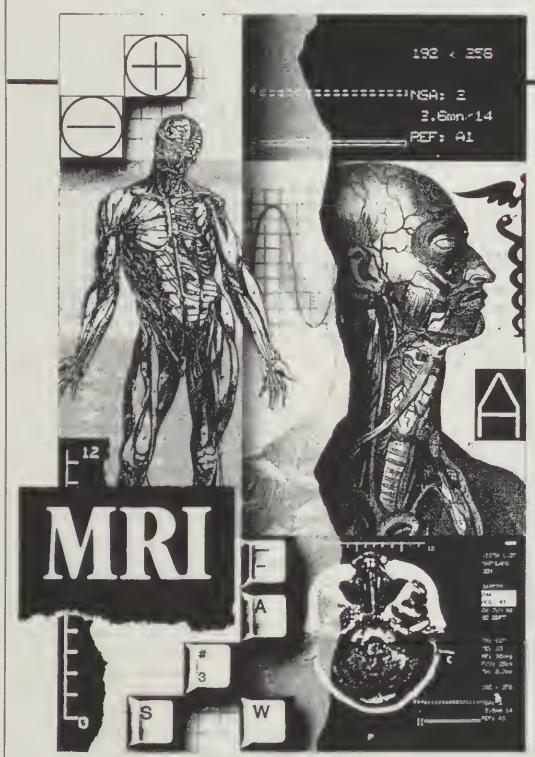
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Executive Director's Newsletter

September 1990

New Date and Location for Med Chi Semi-Annual Meeting

Due to circumstances beyond our control, **Med Chi's Semiannual meeting will be on Friday-Sunday September 14-16, 1990, at the Carousel Hotel and Resort in Ocean City.** The Royal Princess Ocean Suite Hotel will not open in time to host our meeting because of construction delays. The move to the Carousel resulted in several changes in the preliminary program for the meeting. A program update follows this *Newsletter*.

Med Chi will conduct all business meetings at the Carousel. Council will meet on Friday, September 14 at 3:00 p.m. and the House of Delegates will convene on Saturday, September 15 at 1:00 p.m.

Scientific sessions at the meeting include many clinical topics such as interventional radiology, diagnosis and treatment of LVH, and hypertension. Other sessions will address socioeconomic concerns such as physician payment reform, the Maryland Access to Care program, government regulations, and physician retirement. On Sunday, September 16, Med Chi will feature several AMA Videoclinics on various subjects including AIDS, hypertension, cholesterol, and neurology. Med Chi designates continuing medical education activities at the meeting for 12 credit hours in Category I of the AMA Physicians Recognition Award.

One of the technical exhibits at the Semiannual meeting will feature a booth on Health Access America, a new AMA proposal to improve access to affordable, quality healthcare. Sponsored by Med Chi's Committee on Public Health, this booth will provide physicians with valuable information regarding the future direction of our nation's healthcare system.

Make arrangements now to attend the meeting. The Carousel Hotel and Resort offers excellent meeting facilities and is providing Med Chi members with a reduced room rate. For hotel reservations call the Carousel at 1-800-641-0011. For registration infromation contact Ralph Tyksinski, in Med Chi's Office of Education and Meetings Management at 301-539-0872 or toll free 1-800-492-1056.

Drug Conference

Med Chi encourages all physicians to attend "Practical Clinical Management: Drug Abuse Education for the Primary Care Physician," on October 20-21 at the Baltimore Convention Center. Sponsored by Med Chi's Committee On Drugs, this conference will feature Sidney Schnoll, M.D., Ph.D. and Robert DuPont, M.D. who will address issues such as, how to recognize an addict and clinical guidelines for treating chemical dependency. Herbert D. Kleber, M.D., Deputy Director for Demand Reduction in the Bush Administration, will speak on the epidemiology of drug abuse.

Approved for 12 hours in Category I of the AMA Physicians Recognition Award and accepted for 12 prescribed hours by the American Academy of Family Physicians, this conference provides essential information to help physicians obtain a working knowledge of the drug problem and teaches practical treatments to benefit patients.

Since registration is limited, please call now to insure your space at the conference. Tuition is $75 for Med Chi members and $100 for non-members. To receive a conference brochure or to register by phone or for more information call Vivian Smith, Public Relations Assistant at 301-539-0872 or toll free 1-800-492-1056.

Doctor/Lawyer Partnership Against Drugs

Med Chi is seeking physician volunteers who are willing to participate in a Doctor/Lawyer Partnership Against Drugs. This joint effort between Med Chi and the Maryland Bar Association will bring doctor/lawyer education teams into schools to discourage 7th graders from using drugs. During this "rap-session," the physician will focus on the physical dangers of drug abuse while the lawyer will emphasize the legal consequences of using drugs. For more information about how to become involved in this effort, contact your local component society or call Med Chi's Public Relations Department at 301-539-0872 or toll free 1-800-492-1056.

National Practitioner Data Bank

The National Practitioner Data Bank, a central data bank that serves as a nationwide repository for information related to professional conduct and competence, licensure status, and the malpractice claims of physicians, is scheduled to open in late August or September 1990. Established by Congress in the Health Care Quality Improvement Act of 1989, the Data Bank is intended to protect the public from incompetent physicians and to provide an incentive and protection for physicians engaging in effective peer review by providing immunity from liability for damages resulting from good faith peer review activities.

To help physicians better understand the functions of the Data Bank, the AMA recently released, "Informing Physicians About the National Practitioner Data Bank," a booklet designed to alert physicians about how the Data Bank will operate and the risks involved in broad dissemination of information reported. To obtain a free copy of this booklet, call Med Chi's Communications Department at 301-539-0872 or toll free 1-800-492-1056.

Congress Proposes 1991 Balance Billing Limits

Med Chi urges physicians to contact their Congressional Representatives regarding a proposal to impose balance billing limits of 125% of the local prevailing charge (or a physician's 1990 MAAC, whichever is less) on all services starting January 1, 1991. These limits would take effect one year prior to the implementation of the Resource Based Relative Value Scale (RBRVS). The proposed limits would significantly lower revenues for medical services actually scheduled for increases in 1992 under the RBRVS.

To prevent this situation, the AMA is proposing Congress adopt a one year, across-the-board, budget neutral delay of the 1991 balance billing limits. A delay of this proposal is simple and would not result in any additional cost to the government.

To delay these limits, physicians should contact their congressional representatives and urge them to support the AMA's proposal. To telephone Senators and Representatives in Washington, call 202-224-3121. When "the Capitol" answers, ask for your Senators and Representatives by name and state.

For more information regarding this proposal, contact Betsy Newman in Med Chi's Public Relations Department at 301-539-0872 or toll free at 1-800-492-1056.

Address Verification Forms for Med Chi Membership Directory

This month all member physicians will receive green address verification forms for the *1991 Med Chi Membership Directory*. When you receive this form, check the address printed on the form with your current office address and your current mailing address and make certain your medical specialty code number and board number are correct. Please note any changes of address or specialty code and board number on the form and return the form to Med Chi. If the form is printed correctly, you do not need to return the card. For questions regarding the address verification

form, contact Wanda Griebel in Med Chi's Membership Department at 301-539-0872 or toll free 1-800-492-1056.

Specialist Identifier

Physicians are reminded that they may not legally represent to the public, including in advertisements and the yellow pages, that they are a specialist in any field of medical practice unless identified as such by the Board of Physician Quality Assurance.

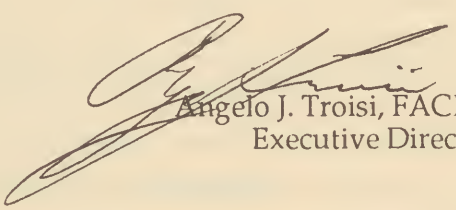
Application for specialty designation is open to all licensed physicians in Maryland. If a physician is certified by the American Board of Medical Specialists, the identification is automatically given by the Board upon confirmation of that credential. If not certified by the American Board of Medical Specialists, the physician must complete an application outlining specific training and experience in the requested specialty. Applications are referred to the Med Chi Committee on Specialist Identification for evaluation and recommendation to the Board. The criteria used for such evaluations were developed jointly by Med Chi and the Board and are set forth in administrative regulations having the force and effect of law. To apply for specialty board certification, contact the Board of Physician Quality Assurance at 301-764-4777.

Murray to Head County/State Relations

Michael A. Murray, who was Assistant Executive Director of Med Chi for 13 years before joining the AMA staff in March, recently was appointed Director of AMA's Office of County/State Relations. Mr. Murray's promotion brings a Maryland perspective to the leadership of the AMA and adds strength to Med Chi/AMA relations. Med Chi congratulates Michael A. Murray on this outstanding achievement.

Durable Power of Attorney and Living Wills

Following this *Newsletter* is a Durable Power of Attorney form and a Living Will form. As a result of the recent Supreme Court Decision, *Cruzan vs. Director, Missouri Department of Health*, it is recommended that both documents be executed jointly to permit the appropriate legal process of the living will in cases involving patients determined to be in a persistent vegetative state. This case demonstrates that there needs to be clear and convincing evidence of a person's intent. The execution of both documentss clearly establishes such intent. For questions regarding either form, contact Greg Hall at the Faculty 301-539-0872 or toll free at 1-800-492-1056



Angelo J. Troisi, FACHE
Executive Director

DECLARATION OF LIFE -SUSTAINING PROCEDURES (LIVING WILL)

On this _____ day of _____, 19____, I, _____, being of sound mind, willfully and voluntarily direct that my dying shall not be artificially prolonged under the circumstances set forth in this Declaration:

If at any time I should have any incurable injury, disease or illness certified to be a terminal condition by two (2) physicians who have personally examined me, one (1) of whom shall be my attending physician, and the physicians have determined that my death is imminent and will occur whether or not life-sustaining procedures are utilized and where the application of such procedures would serve only to artificially prolong the dying process, I direct that such procedures be withheld or withdrawn, and that I be permitted to die naturally with only the administration of medication, and the performance of any medical procedure that is necessary to provide comfort, care or alleviate pain. In the absence of my ability to give directions regarding the use of such life-sustaining procedures, it is my intention that this Declaration shall be honored by my family and physician(s) as the final expression of my right to control my medical care and treatment.

I (do) (do not) *[draw a line through word(s) that do(es) not apply]* want food and water or other nutrition and hydration administered to me by tube or other artificial means in the event that I am in a terminal condition.

I am legally competent to make this Declaration, and I understand its full impact.

_____
(Signature of Declarant)

_____

_____
(Address of Declarant)

Under the penalty of perjury, we state that this Declaration was signed by _____ in the presence of the undersigned who, at request, in our presence, and in the presence of each other, have hereunto signed our names as witnesses this _____ day of _____, 19_____. Further, each of us, individually, states that: The Declarant is known to me, and I believe the Declarant to be of sound mind. I did not sign the Declarant's signature to this Declaration. Based upon information and belief, I am not: related to the Declarant by blood or marriage; a creditor of the Declarant, entitled to any portion of the estate of the Declarant under any existing testamentary instrument of the Declarant; entitled to any financial benefit by reason of the death of the Declarant; nor financially or otherwise responsible for the Declarant's medical care or an employee of any such person or institution.

_____
(Witness)

_____

_____
(Address)

_____
(Witness)

_____

_____
(Address)

DURABLE POWER OF ATTORNEY FOR HEALTHCARE

1. **Designation of Healthcare Agent**

I, _____, hereby appoint

_____ Name

_____ Home Address

_____ Home Telephone Number

_____

_____ Work Telephone Number

_____

as my agent to make healthcare decisions for me as authorized in this document.

If the person named as my agent is not reasonably available or is unable to act as my agent, then I appoint the following person to serve in that capacity:

_____ Name

_____ Home Address

_____ Home Telephone Number

_____

_____ Work Telephone Number

_____

2. **Creation and Effectiveness of Durable Power of Attorney for Healthcare**

With this document I intend to create a durable power of attorney for healthcare, which shall take effect when and if two physicians, one of whom is my attending physician, certify that I am disabled because I lack sufficient understanding or capacity to make or communicate decisions with respect to my own health care. The power shall continue in effect during my disability.

3. **General Statement of Authority Granted**

Except as indicated in Section 4, below, I hereby grant to my agent named above full power and authority to make healthcare decisions on my behalf; including the following:

(1) To request, review and receive any information, verbal or written, regarding my physical or mental health, including, but not limited to, medical and hospital records, and to consent to the disclosure of this information;

(2) To employ and/or discharge my healthcare providers;

(3) To consent to and authorize my admission to and discharge from a hospital or related institution;

(4) To give consent for, or to withhold consent for, x-ray, anesthesia, medication, surgery and all other diagnostic and treatment procedures prescribed (ordered) by or under the authorization of a licensed physician, dentist or podiatrist. This authorization specifically includes the power to consent to measures for relief of pain.

(5) To direct the withholding or withdrawal of life-sustaining procedures or measures when and if I am terminally ill or permanently unconscious. Life-sustaining procedures or measures are those forms of medical care which only serve to artificially prolong the dying process, and may include mechanical ventilation, dialysis, antibiotics, artificial nutrition and hydration, and other forms of medical treatment which stimulate or maintain vital bodily functions. Life-sustaining procedures do not include care necessary to provide comfort or alleviate pain.

(6) To take any lawful actions that may be necessary to carry out these decisions, including the granting of releases of liability to medical providers.

4. **Special Provisions and Limitations**

In exercising the authority under this durable power of attorney for healthcare, the authority of my agent is subject to the following special provisions and limitations:

_____

_____

_____

_____

5. **Guardianship Provision**

If it becomes necessary for a court to appoint a guardian of my person, I nominate my agent or successor agent named above to be the guardian of my person.

6. **Signature of Principal**

By signing here I indicate that I understand the purpose and effect of this document.

_____ _____
Signature Date

7. **Signature of Witnesses**

I declare that the person whose signature appears on this document signed or acknowledged the document in my presence and that I am not the person appointed as agent by this document.

First Witness

Signature:_____ Date:_____

Address:_____

Print Name:_____

Second Witness

Signature:_____ Date:_____

Address:_____

Print Name:_____

Semiannual Meeting

Medical and Chirurgical Faculty of Maryland

NEW DATES:
September 14, 15, 16, 1990
Friday, Saturday, Sunday

NEW LOCATION:
Carousel Hotel and Resort
Oceanfront at 118th Street
Ocean City, Maryland

Program Update



The Medical and Chirurgical Faculty of Maryland is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians.

1990 Semiannual Meeting

Carousel Hotel & Resort, 118th Street - Beach Side, Ocean City, Maryland

Friday, September 14, 1990

12:00 noon - 3:00 p.m. The Carousel Club Room	**Auxiliary Luncheon and Business Meeting** * All Med Chi Physicians and Spouses are welcome to attend this special buffet luncheon. (Tickets may be purchased at the registration desk.)
1:00 p.m. - 5:00 p.m.	**Registration -- Exhibits Open**
2:00 p.m. - 3:00 p.m. Maryland/Virginia Room	**Opening Remarks** -- Reynaldo L. Lee-Llacer, M.D., President **Keynote Speaker** Robert McAfee, M.D., AMA Trustee
3:00 p.m. - 5:30 p.m. Maryland/Virginia Room	**COUNCIL MEETING** Call to Order -- Marvin Schneider, M.D., Chairman
3:30 p.m. - 5:30 p.m. Washington Room	**"New Options for Computers in the Medical Office" --** Workshop presented by the Med Chi Committee on Computers in Medicine. Rafael Haciski, M.D., Moderator Panel to be announced

Saturday, September 15, 1990

8:30 a.m. - 5:00 p.m.	**Registration -- Continental Breakfast -- Exhibits Open**
9:00 a.m. - 10:30 a.m. Maryland/Virginia Room	**Symposium -- "Maryland Access to Care" --** Gary Rosenberg, M.D., Moderator Mary Mussman, M.D., Advisory Physician, Policy & Health Statistics, DHMH Mr. Nelson Sabatini, Dep Secty, Health Care Policy Finance & Regulation, DHMH
10:30 a.m. - 11:00 a.m.	**Break -- Visit Exhibits**
11:00 a.m. - 12:00 noon Maryland/Virginia Room	**"The AMA's Health Access America"** Henry Maganzini, M.D., Chairperson, Med Chi Committee on Public Health
12:00 noon - 1:00 p.m.	**Lunch on your own -- Visit Exhibits**
1:00 p.m. Maryland/Virginia Room	**HOUSE OF DELEGATES** Call to Order -- Reynaldo L. Lee-Llacer, M.D., President
3:00 p.m. - 3:30 p.m.	**Break -- Visit Exhibits**
3:30 p.m. - 5:45 p.m. Maryland/Virginia Room	**"Regulatory Impact on Physicians' Office Practices"** Gerard E. Evans, Esq., Moderator Alan Rifkin, Esq., Rifkin, Evans, Silver, and Lamone Jack De Boy, Dr. P.H., Assistant Director, Laboratory Admin., DHMH Mr. Jack Emery, Assistant Director, AMA Department of Federal Affairs
6:00 p.m. - 7:00 p.m. Lower Le Jardin	**"Royal Reception"** All Physicians, Spouses and Exhibitors Welcome
7:00 p.m. - 10:00 p.m. Delaware Room	**Philippine Medical Association of Metropolitan, Washington, D.C., Dinner and Business Meeting**

Sunday, September 16, 1990

8:30 a.m. - 12:00 noon	**Registration -- Continental Breakfast -- Exhibits Open**
9:00 a.m. - 10:00 a.m. Maryland Room	**"New Directions in Continuing Medical Education on Substance Abuse"** -- Sidney Schnoll, M.D., Ph.D., Division of Substance Abuse, Medical College of Virginia
9:00 a.m. - 10:00 a.m. Virginia Room	**"Diagnois and Treatment of LVH"** John Gottdiener, M.D., FACC, Georgetown University School of Medicine
9:00 a.m. - 10:30 a.m. Washington Room	**"Physicians' Transition to Retirement"** -- A workshop on retirement planning for physicians and spouses. Presented by Representatives from the First National Bank of MD and Toback & Company, Inc., CPAs
10:30 - 11:00 a.m.	**Break -- Visit Exhibits**
11:00 a.m. - 12:00 noon Maryland Room	**"Physician Payment Reform"** Guest Speaker from Health Care Financing Admin., Philadelphia Office
11:00 a.m. - 12:00 noon Virginia Room	**"Interventional Radiology"** -- Fred Osterman, M.D., Chief of the Division of Interventional Radiology, Johns Hopkins University School of Medicine
11:00 a.m. - 12:00 noon Washington Room	**"Threats to Public Health: Violence, Victims of Violence, and Victimization. What Can Physicians Control ?"** Beverly Coleman-Miller, M.D., Special Assistant for Medical Affairs to the Commissioner, Commission of Public Health, Washington, D.C.
12:00 noon	**Exhibits Close**
1:00 p.m. - 5:00 p.m.	**AMA Videoclinics** Stroke (2 hours - Cat. 1) Healthier Youth by the Year 2000 (1/2 hour - Cat. 2) OB/GYN: Updates in Clinical Practice (1/2 hour - Cat. 2) AMA Update : Hypertension: A New Perspective (1/2 hour - Cat. 1) AMA Update: HDL Cholesterol Management (1/2 hour - Cat. 1) AMA Special Report: Highlights of the AMA Annual Meeting (1/2 hour - Cat. 2) AMA Special Report: Highlights of the AMA/HIV and International AIDS Conference (1/2 hour - Cat. 2) Ultrasound Imaging: New Frontiers in Diagnostic Imaging (1/2 hour - Cat. 2) AMA Update: Panic Disorder (1/2 hour - Cat. 1) When the Diagnosis is Family Violence (1/2 hour - Cat. 2)

Adjournment

The Medical and Chirurgical Faculty designates this continuing medical education activity for 12 credit hours in Category I of the Physicians Recognition Award of the American Medical Association. ***A Certificate of Attendance will be issued.*** Appropriate CME credit has been requested from other medical specialty societies.

The Medical and Chirurgical Faculty of Maryland

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About the Carousel Hotel & Resort: Located "on the Beach at 118th Street," it is one of the premiere conference hotels in Ocean City, Maryland. The Hotel is offering ocean front and ocean view rooms at a special group rate for Med Chi members attending the Seminannual Meeting.

For hotel reservations call: 1-800-641-0011 or 1-301-524-1000. Please identify yourself as eligible for the Med Chi special group rate. Deadline for hotel reservations is August 20, 1990.



REGISTRATION FORM

Med Chi Semiannual Meeting

Friday, Saturday, Sunday/September 14, 15, 16, 1990
Carousel Hotel & Resort/Ocean City, Maryland



Registration Fees:

____**Med Chi Members** - No Charge
____**Non-Member Physicians** - $150.00
____**Allied Health Professionals** - $35.00
____**Students/Residents** - No Charge

Name: _____
(Please Print Clearly) Last, First

Address: _____

City: _____

State: _____

Phone: _____

Component Society: _____

Maryland license #: _____

Visa #: _____ **Exp. date:** _____

Signature: _____

Make checks payable to:
Med Chi

Return this Registration Form and your payment to:
Med Chi
Education and Meetings Management
1211 Cathedral Street
Baltimore, Maryland 21201

For additional information call:
Ralph A. Tyksinski, Director
Education and Meetings Management
1-800-492-1056 or 1-301-539-0872

State of Maryland

DEPARTMENT OF HEALTH AND MENTAL HYGIENE
201 WEST PRESTON STREET • BALTIMORE, MARYLAND 21201 • Area Code 301 • 225-

William Donald Schaefer
Governor

Adele Wilzack, R.N., M.S.
Secretary

Dear Physician:

As you may already have heard, the State of Maryland will be changing the way it offers primary medical care and physician-ordered services to many Medicaid patients. The change represents a commitment by the Medicaid Program to shift care to community providers and, at the same time, increase fees for cognitive visits (by an average of 50%).

Under the new Maryland Access to Care (MAC) Program, scheduled to begin early next year, most Medicaid recipients will be required to choose a physician, physician group, or clinic to serve as their primary care provider. Recipients who fail to select a primary care provider will be assigned one. Any time the recipient needs medical care, except in an emergency, he or she must call the primary care provider for an appointment or a referral to another source of care if appropriate. The primary care provider's Medicaid number must appear on the bill of the referred physician in order for payment to be made.

The State of Maryland and the Medical and Chirurgical Faculty encourage you to participate in this new program. We believe that this change will improve the continuity and quality of care for Medicaid recipients: physicians will have an established panel of patients; and, conversely, patients will have a medical "home." The attached article describes the program in more detail.

Nelson J. Sabatini
Deputy Secretary
Health Care Policy,
Finance and Regulation

Reynaldo Lee Llacer, M.D.
President
Medical and Chirurgical
Faculty of Maryland

TTY for The Deaf:
Baltimore Area 383-7555
D.C. Metro Area 565-0451

Maryland Access to Care

Promoting Primary Care for the Medical Assistance Population

We would like to introduce you to MAC - The Maryland Access to Care Program. The MAC program will link Medical Assistance recipients with providers in an effort to decrease inappropriate use of the health care system and increase preventive and primary care. MAC cannot be successful without the participation of physicians. Therefore, as an incentive to participate, physicians will receive up to a 50% fee increase for most primary care services. We believe, that with the help of physicians, this program can address the needs of both physicians and patients. Physicians will receive increased fees and a greater degree of control over their patient populations. Patients will get better continuity of care and assured access. The end result will be a high quality, cost-effective health care system.

Non-urgent care provided in the emergency room is a concern not only because it is at least three times as expensive as comparable primary physician care, but also because the patient does not receive the continuity of care and follow-up provided in a primary care setting. For example, analysis of Medicaid data shows that, the women least likely to receive a PAP test are those whose usual source of care is an emergency room. ER users, overall, have the lowest average number of ambulatory visits per year.

In response to this, the Maryland Medical Assistance Program, has introduced a number of initiatives aimed at promoting primary care for high cost sub-populations where targeted prevention efforts could be both cost-effective and beneficial. These programs include: the Pregnant Women and Children's Program, which expands eligibility for pregnant women and children, the Healthy Start Program, which expands coverage of prenatal care services, and the Multiple Prescriber Program, which is aimed at decreasing the problem of contra-indicated drug prescriptions for the elderly. Additionally, work is under way for a managed care and preventive services program for people with diabetes.

Among the most important goals of the Medical Assistance Program, as demonstrated by these initiatives, is the promotion of high quality primary care. Quality primary care provides continuity and coordination of care, as well as, prevention-oriented services. These factors, in turn, both prevent unnecessary hospitalization and emergency room use and improve the health status of Medical Assistance recipients. The benefits of primary care for recipients can be maximized by replacing a system that encourages episodic, crisis-oriented care from a variety of unrelated providers with a program that promotes continuity of care through a single provider. Health problems can then be identified and treated early in an office-setting, thus delaying, or avoiding entirely, more costly types of care.

Medical Assistance recipients have more chronic illness, higher death rates from preventable diseases, and a greater likelihood of having multiple health problems. At the same time, they are far less likely to have a primary care provider and more likely than those with private insurance to rely on emergency rooms and outpatient departments as their main source of care.

Through MAC, approximately 230,000 Medical Assistance recipients, 75% of whom are AFDC mothers and children, will be linked with a primary care provider, who will coordinate care and act as a point-of-access for the patient's use of the health care system. Recipients will have the opportunity to choose a provider either by phone, by mail, or by signing up through their current provider. If recipients do not choose, Medical Assistance will assign them to a provider in their health service area. Emergencies and care provided once the patient is admitted to an institution will not require pre-authorization. Recipients may change providers any time for an acceptable reason and every twelve months without cause.

Provider types eligible to participate in MAC include: Family Practice, General Practice, Pediatrics, Internal Medicine and Nurse Practitioners. Under certain circumstances, a specialty physician not listed above may be designated as a MAC provider when it is in the best interest of, and requested by, the recipient. MAC providers may practice in the following settings; private practice, Community Health Centers, group physician practices, Children and Youth Clinics, Community Mental Health Centers and other types of free-standing clinics.

Upon enrollment with MAC, a provider can indicate if s/he wishes to limit the number of recipients to be assigned to him/her through MAC. Providers can also opt to only take patients who actively choose their practice, rather than taking patients that have been assigned by Medical Assistance. Providers should be aware that if they do not enroll in the MAC program, they risk losing their current Medical Assistance population to other providers who do choose to participate.

Responsibilities of the MAC provider include:

1) Provide comprehensive primary health care services to all eligible Medical Assistance recipients who choose or are assigned to them.

2) Maintain 24 hour/7 day a week availability through call arrangements or back-up coverage.

3) Refer recipients for specialty care, non-emergency hospital admissions, and non-emergent care in the emergency room. (The MAC provider's Medicaid number must appear in the referral slot on billing forms of other providers in order for the bill to be paid.)

4) Furnish services during a regular schedule of office hours, including a minimum of 20 hours per week over no fewer than three days of the week, except when otherwise approved by the Medical Assistance Program.

5) Maintain a single patient record on each recipient and, for group practices or clinics, designate a single provider within the group as the principle provider for a recipient.

6) If the MAC provider agrees to care for children, s/he must either provide EPSDT/Healthy Kids services or assure the provision of such services.

As always, providers have the right to refuse to accept a patient, as well as terminate a relationship, for a reason that is not discriminatory.

Savings from MAC will allow a fee increase of up to 50% more for most cognitive visits to accompany the additional responsibilities of providers. For example, reimbursement for an intermediate visit with an established patient will increase from $21.00 to $32.00 and an intermediate visit with a new patient will increase from $21.00 to $37.00 with the implementation of MAC. Because the fee increase is so closely tied to program savings, only providers in those counties that fully participate in MAC, i.e. where there are enough providers to match all MAC recipients, will receive the fee increase. We are, however, proceeding on the assumption that there will be enough providers in each county to implement MAC statewide.

The Maryland Access to Care Program is similar to programs either in operation or being implemented across the country. States with programs already in place include: Kentucky, Utah, Michigan and Colorado. Independent surveys of physicians in other states show growing support for programs similar to MAC. Physicians in Kentucky concluded that their program assures increased quality of care for patients, strengthens the doctor/ patient relationship and provides the opportunity for improved continuity of care. In Colorado, 74% of doctors surveyed cited increased physician control over the patient's use of health care services as a strong benefit to the program. Patients have shown similar satisfaction with the programs. 80% of recipients stay with the physicians with whom they are initially linked. Colorado recipients showed a high rate of satisfaction with patient/provider relationships. Other states have shown similar satisfaction rates regarding access to specialists, quality of care received in general, and increased continuity of care.

MAC is essentially a provider-run program; it cannot work without the participation of physicians. In addition to the fee increase already mentioned, MAC offers additional incentives to providers. The MAC provider will have more control over a patient's use of services, and the opportunity to establish a more productive doctor-patient relationship. This improved relationship should lead to

greater compliance with the recommended treatment plan, in addition to, more opportunities to change client behavior through patient education.

The Medical Assistance Program believes that encouraging rational utilization of the health care system can be accomplished within the existing fee-for-service model. As such, MAC providers are not financially at risk for the cost of primary care or any other services rendered to MAC patients. All Medicaid-covered services that are referred by the patient's primary medical provider will be reimbursed on a fee-for-service basis. This will allow emphasis to remain on identifying and coordinating needed services while, at the same time, decreasing unnecessary or duplicative services.

In preparation for the implementation of MAC, we are urging recipients to use the Physician Referral Service to find a physician they may choose to become their MAC provider. This toll-free service links recipients with primary care providers in their communities. You may wish to have your practice listed with this service.

Implementation of MAC is a major change for the Medical Assistance Program. For a majority of recipients, the State is shifting from being an enabler for the receipt of service (we provide the insurance card and it is up to the patient to find someone to provide the service), to actively linking recipients with providers. The Maryland Medical Assistance Program is strongly committed to MAC and its potential for improving primary care. As stated before, however, the program will not succeed without strong physician support.

We have established, and will continue to work closely with, an Advisory Committee with representatives of all provider types. We encourage physicians to provide input, either through their local medical society, or by calling DHMH staff at the numbers listed below to make suggestions, express concerns or ask questions.

We believe that MAC, by ensuring continuity and coordination of care, as well as facilitating appropriate utilization of services, will result in more responsible use of public funds and improved primary care for patients. Your comments, suggestions, and participation will help ensure the success of Maryland Access to Care.

The following DHMH staff are available for comments at (301) 225-5806:

Mary Mussman, M.D., M.P.H.
Jonathan Foley
John O'Brien
Heide Smith

Mail responses to:

Policy and Health Statistics Admin.
2nd Floor - Room 225
201 West Preston St.
Baltimore, Maryland 21201

Medical Specialty Indentification Application

Name:_____

_____

Address:

_____

_____

Maryland Medical License No.:

_____

Social Security No.:
Provision of SSN is voluntary

_____

Medical specialty/subspecialty requested:

_____

_____

_____

Return this form to:
Board of Physician Quality Assurance of Maryland
4201 Patterson Avenue
P.O. Box 2571
Baltimore, MD 21215-0095
Telephone:(301)764-4777

Medical Specialty Identification

The Board of Physician Quality Assurance has adopted COMAR 10.32.09 Identification of Medical Specialties, in order to implement Health Occupations Article 14-704, which provides for the identification of medical specialists by the Board. **A physician may not represent to the public in Maryland that he is a specialist in any field of specialized medical practice unless identified as a specialist in that field by the Board.**

There are two ways to become identified as a medical specialist. They are:

A. Specialty Board certification.

If you qualify as a medical specialist because of specialty board certification, please enclose a $5 fee for each specialty requested and a photocopy of your certification.

B. Evaluation of credentials by a Medical Review Committee.

If you are not American Board of Medical Specialties (AMBS) specialty or subspecialty board certified but wish to be credentialed as a medical specialist in any field of medicine through evaluation of credentials, education, and experience, please enclose a $15 evaluation fee plus a $5 identification fee for each specialty requested). The evaluation form will then be sent to you.

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Venomous Snakebites

Barry S. Gold MD and Robert A. Barish MD

Dr. Gold has a private practice in Internal Medicine and is Medical Director of Medicare - State of Maryland. Dr. Barish is Director of Emergency Medical Service, University of Maryland Medical Systems, and Assistant Professor of Surgery and Medicine, University of Maryland.

As the incidence of snakebites increases, physicians need to be able to recognize venomous bites and to be familiar with current concepts in diagnosis, treatment, and management of snake envenomation.

Indiana Jones may have said it for everyone when he uttered "I hate snakes!" in his quest for *The Lost Ark*.

Most people in the United States not only agree with him but also are under the false impression that all snakes are poisonous. In reality, about 10 percent of approximately 2,500 species are venomous. As more Americans have taken to outdoor activities, there has been an increase in the occurrence and treatment of venomous and nonvenomous snakebites. Many physicians, unfamiliar with the recognition of venomous bites, may be anxious about treatment protocols, which are controversial even among snakebite authorities. Differences of opinion among experts have centered on the use of tourniquets, ice, antivenin, route of administration, and choice of wound exploration. It is necessary for all physicians to become familiar with current concepts in the mechanisms and treatment of snake envenomation (snake venom poisoning).

Venomous Snakes in the US

Only four types of venomous species of snakes are indigenous to the United States. Of these, three are of the subfamily known as pit vipers (*Crotalinae*): rattlesnakes, copperheads, and cottonmouths, commonly referred to as water moccasins. The coral snake (*Elapidae*) is the other native poisonous snake. At least one or more species of poisonous snake has been identified in every state except Alaska, Maine, and Hawaii.[1]

Pit vipers are distinguishable by a foramen, or pit, located between each eye and nostril. The pit is a heat-sensitive organ enabling the snake to locate warm-blooded prey during nocturnal foraging. They have elliptical pupils and two sharp, canalized fangs that are long and movable, retracting posteriorly when the mouth is closed. Occasionally one may see two fangs on one or both sides of the respective jawbones, representing part of the replacement series of fangs. At least three pairs of replacement

fangs, in various stages of development, lie behind each functional fang and move forward throughout the life of the snake to replace shed or broken fangs. Since fang replacement occurs at various intervals (weeks to months), no fangless or "defanged" snake remains harmless indefinitely. The pit viper's head appears triangular due to the venom glands located in the temporal region.

Rattlesnakes (*Crotalus*) and pygmy rattlesnakes (*Sistrurus*) have rattles attached to their tails. It is believed that the rattle functions as a warning device. The eastern diamondback rattlesnake (*C. adamanteus*) is considered to be the largest and most dangerous snake in the Southeastern US. It possesses large quantities of highly toxic venom.

Copperheads (*Agkistrodon contortrix*) have inverted Ys and hourglass configurations on their bodies. Their head varies in color from copper to various shades of brown. The majority of bites by copperheads do not result in fatalities, but severe bites that are not treated could result in death.[2] Cottonmouths (*Agkistrodon piscivorus*) are dark olive to black in color providing camouflage in swampy marshes. The pale white color of its oral mucosa is highly visible when its mouth is fully opened. A large snake, it is often aggressive when encountered, and its venom is moderately toxic. The cottonmouth is capable of biting while under water.

The coral snake (*Micrurus fulvius*) is a small, beautifully colored snake with broad rings of red, yellow, and black. A number of harmless snakes resemble the coral snake, but the broad bands of red and black separated by yellow rings help to differentiate the coral snake from nonpoisonous snakes with similar markings. Black and albino also have been identified. All coral snakes in the US possess black snouts, and round pupils, and lack facial pits. The coral snake is shy, secretive, and nocturnal; it rarely bites humans. It has short, fixed fangs that contain a potent neurotoxic venom (rarely fatal) that is injected into a victim by a succession of chewing movements.

Poisonous v. Nonpoisonous

A patient sometimes will bring the snake that has bitten him/her to the hospital or clinic. It is important that medical personnel be able to distinguish between a poisonous and a harmless snake. Harmless snakes in the US have round pupils and do not possess fangs, but they have small teeth that produce a typical bite pattern. Exceptions include a few species of rear-fanged *Colubridae* that have elliptical pupils but are not considered dangerous to man. In general, harmless snakebites are characterized by four rows of small scratches produced by the four rows of teeth in the snake's upper jaw, separated from two rows of small scratches produced by the two rows of teeth in the snake's lower jaw (Figure 1).

Occasionally a snake is brought to the hospital after its head has been chopped off and left at the site of the accident. Pit vipers can be identified by observing a single row of subcaudal plates just below the anal plate on the underside of the snake's tail. This is contrasted to harmless snakes that have a double row of subcaudal plates. Figure 2 compares venomous and nonvenomous snakes.

More often than not the snake is not available for

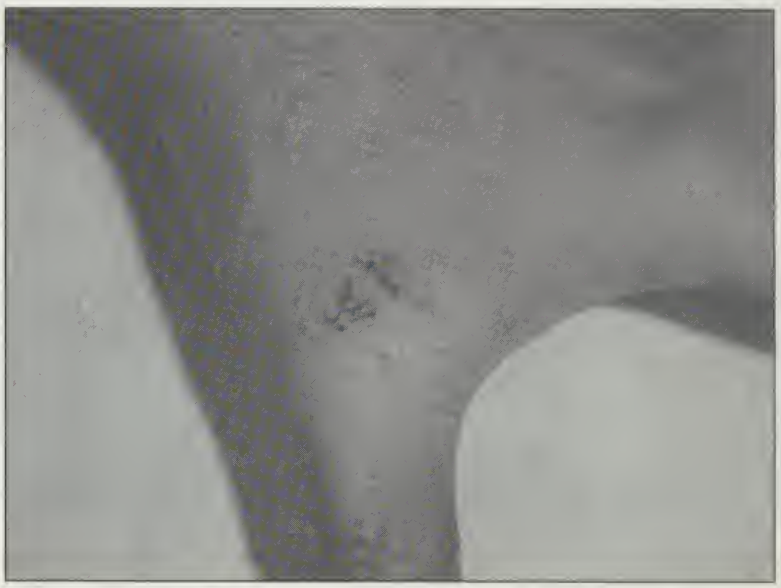


Figure 1. Characteristic pattern of a bite wound produced by nonvenomous snake. Note the four rows of teeth marks produced by the snake's upper jaw.

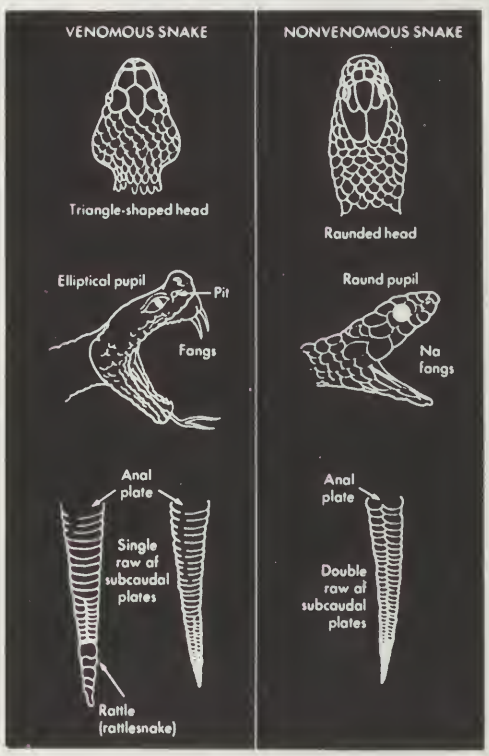


Figure 2. Comparison of venomous snakes (pit vipers) and nonvenomous snakes.

identification. Consequently, accurate diagnosis and treatment depend on objective signs and symptoms of snakebite envenomation.

Although many people believe that all bites sustained from venomous snakes invariably result in envenomation, about 25 to 30 percent of poisonous snakebites do not result in envenomation and require no further treatment.[1] This happens as a result of failure of the venom gland-fang mechanism, insufficient amount of venom injected, and/or indirect hits with the fangs that result in only scratches.[3]

Symptoms and Signs

Terror is the most common reaction to both venomous and nonvenomous snakebites. As a result of intense fear and panic, the victim may become emotionally unstable, with thoughts of imminent death, or may enter a state of extreme lethargy and withdrawal. Fear may cause symptoms such as nausea, vomiting, diarrhea, dizziness, fainting, tachycardia, and cold, clammy skin. Autonomic reactions must not be mistaken for systemic symptoms from the bite, leading to unwarranted treatment by individuals unfamiliar with snakebite management.

The cardinal signs and symptoms of pit viper envenomation are fang puncture(s), pain, edema, and erythema of the bite site and adjacent tissues (Figure 3).

The number of puncture wounds may be one, two, or more depending on the number of fangs the snake has, the accuracy of the strike, and the number of strikes inflicted. Superficial lacerations produced by fangs usually do not result in envenomation because the discharge orifice of the fang lies somewhat above the tip. Teeth marks, other then fang punctures, may or may not be present.

There is moderate to severe pain in or around the local bite site in about 90 percent of pit viper envenomation. The pain has been described as sharp and burning in character, usually developing within five minutes following inoculation of the venom.[1] If local pain or tenderness has not developed within one hour of the bite, the snake was either nonpoisonous or did not deposit venom.

Edema and erythema are characteristic of pit viper envenomation, occurring usually within 30 minutes of the bite and evolving both proximally and distally as the venom spreads. The edema may spread for 12 to 24 hours. If the occurrence of edema and erythema have not manifested within 4 hours after a snakebite, it generally is safe to assume the patient does not have pit viper envenomation.[3] Erythema results secondary to capillary congestion. Diapedesis promotes the appearance of ecchymoses and hemorrhagic blebs after several hours. The venom contains a vasculotoxin that increases capillary fragility and the appearance of petechiae. Bullae may then appear, which may be serous or hemorrhagic, indicating the severity of the envenomation.

Regional lymphadenopathy and concomitant tenderness occur even in minimal envenomation. The development of subfascial tension may augment necrosis as a result of obstruction of arterial and venous blood flow.

Severe envenomation may be accompanied by hypotension and shock occurring a half hour or more following the bite.[4] Other less frequent systemic manifestations are paresthesias about the face and lips and skeletal muscle fasciculations in the affected area, occasionally becoming generalized secondary to the neurotoxic component of some pit vipers, that is, the eastern diamondback rattlesnake.

Anemia occurs secondary to endothelial damage and hemolysis. The venom-induced intravascular clotting triggers the defibrination syndrome resulting in hematemesis, hematuria, and internal hemorrhage. Acute renal failure may result secondary to disseminated intravascular coagulation and cortical necrosis or acute tubular necrosis from shock (pooling of blood in the microcirculation). Generalized convulsions, coma, and respiratory paralysis may ensue.



Figure 3. Photograph of hand showing typical signs of edema and erythema approximately 1 hr following bite of copperhead. Left hand is shown for comparison.

Elapidae (coral snakes and cobras) envenomations differ markedly from those of pit vipers. There may be little or no pain or swelling immediately after the bite. Occasionally, there is a delay of one to five hours before the onset of systemic symptoms[5] characterized by ptosis, dysphagia, dysarthria, and intense salivation. Loss of deep tendon reflexes and respiratory depression occur later as a result of a potent neurotoxic agent.

Clinical Classification of Pit Viper Bites

A five-grade classification system (Table 1) was developed to assist physicians in determining the severity of the envenomation and to serve as a guide in treatment.[6-8] For example, the preponderance of edema seen in many cases may be the result of a tightly applied tourniquet, rather than the severity of the envenomation. On the other hand, victims seen immediately after a large bite by a rattlesnake may exhibit intense pain but show few other symptoms and signs until later.

The ultimate severity of any venomous snakebite depends on the size and species of snake; the location of the bite; the number of fang punctures; the grade of envenomation; and the age, size, and underlying medical condition of the victim. For the most part, rattlesnake and cottonmouth bites are more serious than bites inflicted by copperheads.

Epidemiology

Approximately 6,700 people in the continental United States were treated for poisonous snakebites in 1958 and 1959, when the last major survey was performed by H. M. Parrish.[1] To collect data on snakebites, all hospitals in the US were asked to report inpatients treated for poisonous snakebites. Since it was not standard practice to code and tabulate diagnoses for patients visiting emergency rooms and outpatient clinics, and since many snakebite victims were not admitted to the hospital as inpatients, Parrish also submitted his questionnaire to a random sample of practicing physicians (internists, general practitioners, surgeons, pediatricians, and orthopedists) who may have treated snakebite victims in the office, home, or emergency room. Copies of death certificates for fatal snakebites were requested from state health departments.

States having the highest bite rates per 100,000 population were North Carolina (18.79), Arkansas (17.19), Texas (14.70), Georgia (13.44), West Virginia (11.29), Mississippi (10.83), Louisiana (10.25), and Oklahoma (8.85). The majority of these victims were male, nonwhite, and under 20 years of age. Over 90 percent of the bites were inflicted on the person's extremities. Temporal studies showed that 94 percent of the bites occurred between April and October, the peak months being July and August. This coincided with the times when snakes were more prevalent and the human population more likely to participate in outdoor occupational and recreational activities.

Table 1. Grades of Envenomation: Pit Viper Bites

Grade	Degree of Envenomation	Clinical Examination and Findings
0	None	Fang marks and minimal pain, less than 1" edema
I	Minimal	Fang marks, pain, 1-5" edema and erythema in first 12 hrs
II	Moderate	Fang marks, pain, 6-12" edema and erythema in first 12 hrs; Systemic symptoms, occasionally
III	Severe	Fang marks, pain, edema and erythema over 12" in 24 hrs; systemic symptoms present, including coagulation defects
IV	Very severe	Rapid local reaction; edema of ipsilateral trunk; ecchymoses, blebs, coagulation defects

Venomous Snakes in Maryland

Poisonous snakebites remain a significant medical problem in the region of the southern Atlantic states. The last major survey in Maryland was performed as part of Parrish's mapping in 1958 and 1959. This study included questionnaires returned from 46 Maryland hospitals, supplemented by 348 practicing physicians in Maryland.[9] The adjusted physicians' reports demonstrated that approximately 18 inpatients and 24 outpatients were treated in 1958 and 1959. This yielded an incidence of 1.35 bites per 100,000 population per year.

Only two venomous snakes are indigenous to Maryland: the timber rattlesnake (*Crotalus horridus horridus*) and the northern copperhead (*Agkistrodon contortrix mokeson*) (Figure 4).

The timber rattlesnake is the second largest and most dangerous rattlesnake native to the eastern portion of the United States. Its body color varies with the phase and may be either yellow or black. The timber rattlesnake's usual habitats include mountainous and hilly terrains with surrounding rocky ledges and wooded regions. In Maryland, the timber rattlesnake is found in the western third of the state and in a small area just north of Baltimore.

The copperhead is more common in Maryland than is the timber rattlesnake, and accounts for more bites. It is sometimes referred to as the dryland moccasin or the highland moccasin. Other names have included the pilot snake, red oak snake, poplar leaf snake, and white oak snake. The average adult snake will vary in length from 24 to 36 inches.

The copperhead snake is ubiquitous to mountains, wooded hillsides, rock piles, rock quarries, and sawdust piles and is found throughout Maryland, except in the central portion of the Eastern Shore. It is not unusual for the copperhead to live within city limits and near suburban housing developments. Rodents, frogs, birds, and insects are its major food sources. When disturbed or stepped on, the copperhead can strike with lightning speed.

Snakebites in Maryland: 1988 - 1989

A detailed questionnaire and a letter explaining the purpose of a survey were prepared by Gold and Barish and mailed to 49 emergency department directors in Maryland with a request to report all inpatients and outpatients treated for poisonous snakebites in 1988 and 1989. The questionnaire sought information for both years to determine whether there were large

statistical variations in venomous snakebite cases and was followed up by telephone calls, letters, and requests for additional information.

Results

A total of 24 venomous snakebites were reported by Maryland hospitals in 1988 and 1989. Based on the 1989 Maryland census, this shows an incidence of 0.42 bites per 100,000 population in 1989. The geographical distribution of venomous snakebites occurring in Maryland in 1988 and 1989 is shown by their respective symbols in Figure 5.

Of the 24 venomous snakebites reported, nine bites were from copperheads, four from timber rattlesnakes, and eleven from unidentified poisonous snakes. The current study shows that 38 percent of poisonous snakebites in Maryland were inflicted by copperheads. The majority of unidentified snakebites occurred within the locality range for copperheads, suggesting that many of these bites were inflicted by copperheads. Two cases of timber rattlesnake bites occurred outside the ecological range for this species, but the victims were handling pet rattlesnakes.

Temporal relationships All cases of venomous snakebites were reported from May through October of 1988 and 1989. The highest number of bites were reported in July and August. This coincides with the time when snakes are more active and parallels the earlier study by Parrish (Figure 6).

Most snakebites occurred between 3 and 6 p.m. (seven people were bitten). An additional six bites occurred between 6 and 9 p.m. accounting for 54 percent of the bites.

Snakebite victims Of the 24 cases, 21 males and 3 females were treated for snakebites in 1988 and



Figure 4. Maryland's venomous snakes: the copperhead (top) and the timber rattlesnake. Photographs by Joseph McSharry.

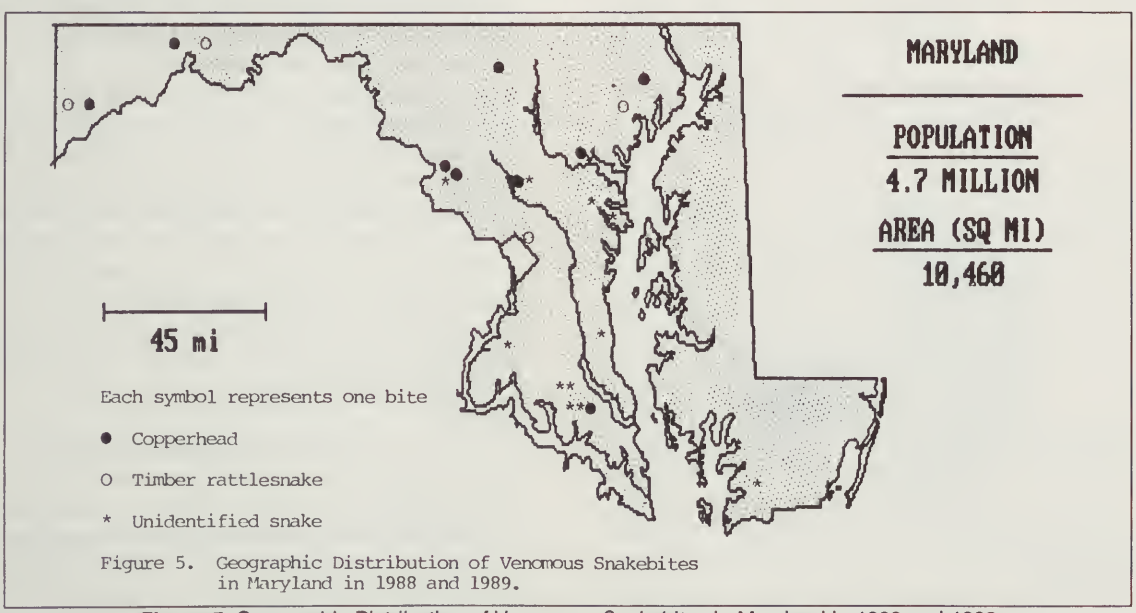


Figure 5. Geographic Distribution of Venomous Snakebites in Maryland in 1988 and 1989

1989. Of these, 21 were white and 3 were black. The black victims were all males. Seventy-two percent of the snakebite victims were between the ages of 20 to 49. These ages differ significantly from those shown in 1959 by Parrish. In that study, 64 percent of all snakebite victims were children and young adults less than 20 years old.[9]

Activity Figure 7 shows the various activities of the victims when bitten by venomous snakes.

Site and severity All the venomous snakebites reported occurred on the extremities. Approximately 70 percent of the bites occurred on the upper extremities, the remainder on the lower extremities.

The clinical classification of pit viper envenomation described in Table 1 was used to determine the severity of each snakebite. Nine cases were reported as Grade 0 and ten cases as Grade II envenomations. Three cases were reported as Grade I, and two cases were reported as Grade III. No cases of Grade IV envenomations were reported.

There were no deaths related to the venomous snakebites reported in 1988 and 1989.

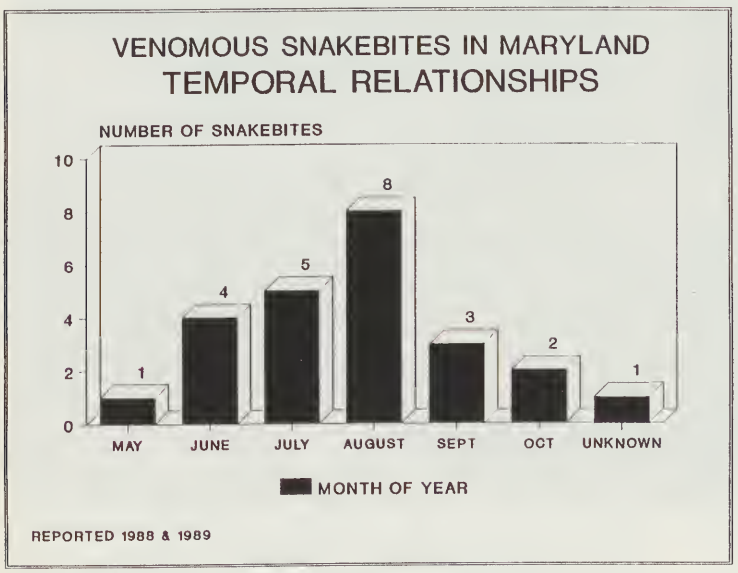


Figure 6.

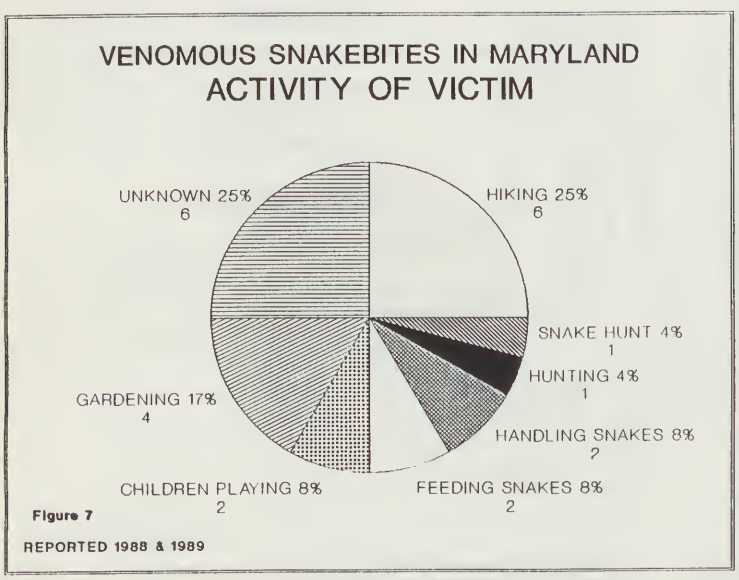


Figure 7.

Emergency Therapy in the Field

In the event of a suspected snakebite, the patient should be reassured and the area of the bite immobilized at or below the level of the heart. No stimulants (such as caffeine or alcohol) should be ingested by the victim, since they accelerate absorption of venom. We strongly recommend that the victim be transported to the nearest medical facility as soon as possible.

The standard use of tourniquets and incision and suction (I&S) as part of emergency field therapy remains controversial among many snakebite experts. We strongly discourage the use of tourniquets and I&S by lay people. This is supported by Dart who studied 94 snakebite victims at the University of Arizona. Of these, 18 patients had used tourniquets. Of these, eight developed problems: six developed tissue loss, and two had permanent disability resulting directly from the use of a tourniquet.[10] Treatment should be administered by a physician or individual skilled in snakebite management.

Many people are under the impression that snakebite victims die within several minutes to two hours following the bite. This is a fallacy for snakes indigenous to the US. It generally takes several hours after the bite before the severe toxic effects from the venom ensue. According to Parrish, of 138 people who died from snakebites in the US over a ten-year period, only 4 percent died within one hour, and only 17 percent died within six hours. The majority (64 percent) died six to forty-eight hours after the bite.[11] Victims of snakebites who receive medical attention within the first two hours following a bite have an excellent chance of survival.

The snake should be killed and the head brought for identification, if this can be done without endangering either the victim or another person. However, tt has been observed that recently killed or dying snakes are still capable of inflicting bites. We are aware of snakebites resulting from handling the severed head of a venomous snake that was killed several minutes earlier. It is therefore imperative not to handle the snake directly, but rather to use a stick to place the snake's parts in a bag or other container.

Emergency Room Therapy

A detailed history of the envenomation along with the type of field therapy (for example, tourniquet, I&S) administered should be obtained. The history should include the **time of the bite, a description of the snake, and whether it was killed**

and brought in for identification. The patient's past medical illnesses such as heart disease, diabetes mellitus, hypertension, renal disease as well as allergies such as asthma, exposure to horses, and previous administration of horse serum should be obtained.

A preliminary physical examination should include inspection of the bite site to observe for fang and/or tooth marks. One does not always find two fang puncture wounds. There occasionally may be one, two, or more present (the patient may have been bitten repeatedly by the same snake). A baseline neurological status should follow the recording of blood pressure, pulse, temperature, and respiratory rate. Using the grading classification, an attempt should be made to classify the envenomation. A circumference measurement of the bitten area should be done, repeated on an hourly basis, and documented on the chart.

A skin or eye test for hypersensitivity to horse serum should be performed by the intracutaneous injection of 0.02 cc of saline diluted serum at a site distant from the bite. The wheal site is observed for at least 10 minutes for the development of erythema, hives, pruritus, or other untoward effects. A syringe with 1:1000 epinephrine should be available for allergic reactions.

Blood should be drawn for CBC, platelets, glucose, BUN, creatinine and serum electrolytes. Additional blood should be obtained for transaminases, bilirubin, creatinine phosphokinase, prothrombin time, partial thromboplastin time, thrombin time, and fibrinogen, and typed and cross-matched. A baseline urinalysis should be obtained. These tests can be repeated at appropriate intervals. An electrocardiogram should be obtained in all patients over the age of 40.

A large-bore peripheral intravenous line for the delivery of antivenin in 5 percent dextrose/normal saline should be started. A second peripheral intravenous line employing a large-bore catheter is recommended in moderate to severe envenomations where it may be necessary to administer large volumes of fluid, plasma, blood, and other medications in the event shock ensues. We believe that if there is any doubt regarding the severity of the envenomation, the patient should be hospitalized for at least 24 hours and monitored frequently. The patient's family should be notified as soon as possible and informed of the patient's condition and possible late manifestations.

The Role of Antivenin

Antivenin remains the mainstay of venomous snakebite treatment. Antivenin (Crotalidae) is a polyvalent North and South American antisnake serum manufactured by Wyeth Laboratories by hyperimmunizing horses with multiple snake venoms. A separate antivenin is used for coral snakebites. For Grade 0 to Grade I envenomations, no antivenin is routinely administered.

Antivenin is given to those patients who have demonstrated Grades II through IV envenomation and have a negative skin test or conjunctival test. The demonstration of a negative skin or conjunctival test does not preclude the possibility of an anaphylactic reaction. For this reason, we administer 0.2-0.5 cc of antivenin slowly, intravenously, over 5 minutes. If no reaction occurs, the remainder can be infused after mixing with normal saline, 5 percent dextrose/water or Ringer's lactated solution and infused over one to two hours. We do not recommend that antivenin be given in one ampoule increments over many hours. If the anticipated severity of the envenomation would require the administration of, for example, a total of 5 ampules, it is best to administer the entire amount over a period of one to two hours.

In cases where the patient demonstrates a positive skin or conjunctival test, the risk of possible death from snake envenomation should be weighed against the risk of anaphylaxis to horse serum. The brochure that accompanies the antivenin outlines the technique for desensitizing patients with positive skin or conjunctival tests who require antivenin for moderate to severe envenomations. Those patients undergoing desensitizing or treatment with antivenin should be monitored in an intensive care unit.

Patients with severe envenomations who have had anaphylaxis from horse serum pose serious problems. In this clinical situation, the physician should seek written consultation from other physicians, along with a discussion of the options with the patient and his/her relatives. Parrish elected not to treat four patients with severe envenomations and a prior history of anaphylaxis to antivenin because he believed the risk of dying from anaphylaxis was much higher than the risk of dying from severe pit viper envenomation.[12] Parrish indicated that this was a small percentage of cases and that untreated pit viper envenomation can result in death. We believe that in the setting of today's intensive care units with state-of-the-art monitoring equipment, moderate to severe rattlesnake envenomations should be treated with antivenin.

Amount of Antivenin

Antivenin neutralizes the venom at the site of the bite before the venom and its by-products are absorbed systemically. Until the 1960s, most antivenin was given either intramuscularly or subcutaneously. Some investigators injected it directly into the area of the bite. Subsequent experimental studies have shown clearly that intravenously administered antivenin yields a more rapid, effective, and predictable response.[13-15]

Ideally, the amount of antivenin administered to patients should be based on the amount of venom inoculated and the potency of the individual snake's venom. It has been observed that the potency of the venom of an individual snake may be as much as five times greater than another snake of the same species.[16] As a result, it is impossible to provide a rule to precisely calculate the amount of antivenin to deliver.

Based on his clinical experience with snakebites, Parrish has recommended the following amounts of antivenin for treating the various grades of envenomation: for Grade 0, no antivenin; for Grade I, 10 cc of antivenin; for Grade II, 30-40 cc of antivenin; and for Grade III, 50 cc or more of antivenin.[12] According to Gennaro,

> the dose of antivenin must vary with the severity of the bite and can probably be said to be adequate when the progressive swelling of the bitten part is permanently inhibited. Two to five units may be customary and occasionally more are necessary.[15]

Wengert recommends a different approach for the treatment of envenomations: no antivenin for Grade 0; 50 cc for Grade I; 100 cc for Grade II; and 150 cc for Grade III.[17] These dosages are considered high and reflect the severity and toxicity of bites from the Mojave rattlesnake (*Crotalus scutulatus*) endemic in the West.

In our opinion, dosage should be guided by the severity and progression of edema as well as clinical and laboratory findings. In children, many experts recommend that the dose of antivenin be increased by 50 percent because of the relatively larger volume of envenomation in relationship to their total body surface area.

Antivenin should not be routinely administered in every pit viper bite. It may be unnecessary in most cases of copperhead bites, unless the envenomation is considered moderate to severe, or possibly in the case of small children.

Pregnancy is not a contraindication to the administration of antivenin. Early treatment may halt venom induced uterine contractions and abortions in cases of severe envenomation.[18]

Incision and Suction

Incision, suction, and cautery was first described by the Indian physician Sushruta in 600 BC. This treatment has remained unchanged with the exception of cautery over the last 2,500 years. For many physicians, an intermittently applied, lightly constricting tourniquet, obstructing only lymphatic and superficial venous blood flow is still considered very effective in delaying spread of venom and makes incision and suction (I&S) more effective. Parrish observed that controversy over I&S generally could be explained by differences in experimental methods, including the choice of venoms, experimental animals, methods of performing I&S, and criteria for judging the success or failure of an experiment.[3] Ya and Perry found I&S effective when performed within 30 minutes following the injection of venom in dogs.[19] Reid advises that any excess venom should be wiped off from the skin surface and a firm but not tight tourniquet should be applied; the victim should be transported to a hospital as soon as possible.[20]

Incision and suction (I&S), if performed, should be done by a medical professional. If performed improperly, there is increased risk of wound infection and possible compromise and damage to neurovascular elements. Cruciate incisions should not be made, since this violates the principles of wound healing and can accelerate necrosis of skin margins. A linear incision is made through the skin, approximately one-quarter inch long and one-eighth inch deep over the fang puncture(s). In the event of multiple fang punctures, incisions should be made over the punctures. The sooner I&S is performed, the more venom can be extracted from the bite. To be effective, I&S should be performed only within the first 30 minutes of the envenomation. If a tourniquet is in place, and no other first aid therapy is performed, I&S may be performed and continued for about one hour. Once antivenin is administered, I&S should be discontinued. In the majority of instances, at least 30 minutes or more elapse before snakebite victims are evaluated by medical personnel. Therefore, I&S should rarely be performed.

Excision and Suction

Not all venomous snakebites should be treated by excision and suction: it should be reserved for severe envenomations, such as those involving the trunk. To be effective, the area of excision should be wide. Excision and suction, like I&S, should be performed within 30 minutes.[21]

Fasciotomy

An intense debate revolves around the use of surgical fasciotomy for decompression of severe envenomations associated with elevated compartment pressures. The compartment syndrome can be viewed as an acute toxin-associated myositis/cellulitis that may progress independently of the compartmental pressures. Garfin found that there was no surgical difference with fasciotomy and recommended medical management.[22] Many authorities are becoming more conservative with the use of a fasciotomy as initial treatment of envenomation. We believe that medical management with antivenin should be the initial therapy in all severe envenomations.

Cryotherapy

The proponents of cryotherapy believe cold (ice packs or ice water) applied to the site of the bite is useful in the reduction of pain, absorption of venom, and prevention of widespread scarring produced by other techniques. Most experts on snakebite treatment agree there is no experimental evidence to support this method of therapy. This has been stated by the American Red Cross, the National Academy of Sciences, National Research Council on Envenomation, as well as the American College of Surgeons Committee on Trauma. In fact, this treatment often causes more damage to the affected area than the venom itself. This is secondary to frostbite from vasoconstriction.

Moreover, the vasoconstriction in the cooled, damaged region does not allow the antivenin to penetrate and neutralize the effects of the venom. When the cooling is discontinued, a "rebound phenomenon" is observed, where the venom and its by-products are released into the body. This could actually lead to a recrudescence of the envenomation, including shock.[2] In an analysis of 36 cases of amputation after snakebite, McCollough and Gennaro noted that cryotherapy had been used in 27 cases (75 percent).[8] We are of the opinion that cryotherapy has no place in the treatment of snakebite envenomation.

Tetanus Immunization

Patients who have not received immunization from tetanus, should be given tetanus immune globulin and tetanus toxoid. For patients who have been immunized but who have not received a booster shot within the previous five years, a booster is recommended.

Antibiotics

Most authorities agree that antibiotics are indicated in the majority of cases. The exception is for superficial scratches that can be locally treated with antiseptics. Ledbetter and Kutscher do not use prophylaxis on all snakebite victims with broad-spectrum antibiotics because the bacteria on fangs and in venom is varied, and they believe no single antibiotic is effective against the majority of gram negative organisms.[23] On the other hand, Parrish studied the bacterial flora of snakes' mouths and venom glands. The most commonly found organisms were gram negative and gram positive rods. *Proteus vulgaris*, *Escherichia coli*, and *Corynebacterium diphtheroids*-sp were cultured.[24]

We recommend the use of a broad-spectrum antibiotic that provides appropriate gram negative coverage for the treatment of moderate to severe envenomations.

Complications of Treatment

The most frequently recognized complication of venomous snakebite treatment is serum sickness that occurs approximately 7 to 14 days following the administration of antivenin. In general, the probability of serum sickness increases with the administration of doses of antivenin exceeding five vials. It generally manifests in fever, rash, arthralgias, and lymphadenopathy. Rarely, a peripheral neuritis, pericarditis, or encephalitis may be observed. Patients respond very well to a tapering course of prednisone, generally starting at 60 mg/day and tapered over the next 7 to 10 days.

A rare complication is the development of anaphylaxis from sensitivity to the antivenin. This generally occurs within the first 30 minutes following its administration. As mentioned previously, it is treated with IV epinephrine, diphenhydramine, and hydrocortisone or its derivatives.

Injuries resulting from first-aid treatment using a tourniquet either applied too tightly or left in place too long have resulted in necrosis and amputation of a limb. A tightly applied tourniquet may augment the presence of edema, which could alter the interpretation of the severity of the envenomation. Cryotherapy treatment usually is attended by extensive tissue necrosis and frequently results in subsequent amputations.

Snakebite Prevention

While outdoors, one should avoid snake-infested areas (such as caves, rock crevices and dens) and take adequate precautions when stepping, sitting, or lying on unknown terrain. Boots, gloves, trousers, and long-sleeved shirts should be worn for protection. One should never attempt to awaken, alarm, or molest a snake if one or several are encountered. If one is horseback riding and dismounted, the horse should be kept close by. Venomous snakes never should be kept as pets.

Reporting of Poisonous Snakebites

Although there are laws governing the reporting of communicable diseases, physicians and hospitals are not required by law to report venomous snakebites in the majority of states. It is our belief that the incidence of venomous snakebites is highly underreported. Only a federal mandate to report snakebites will provide the impetus for states to treat snake envenomations as reportable diseases.

References

1. Parrish HM. Incidence of treated snakebites in the United States. Public Health Rep 1966;81:269-76.
2. Parrish HM. Pitfalls in treating pit viper bites. Med Times 1967;95:809-15.
3. Parrish HM. Snake venom poisoning: Diagnosis and treatment. Med Times 1961;89:595-602.
4. Van Mierop LHS. Poisonous snakebite: A review. J Fla Med Assoc 1976;63:191-200.
5. Reid HA. Myoglobinuria and sea snakebite poisoning Brit Med J 1961;1:1284.
6. Wood JT, Hoback WW, Green TW. Treatment of snake venom poisoning with ACTH and cortisone. Va Med 1955;82:130-35.
7. Parrish HM. Poisonous snakebites resulting in lack of venom poisoning. Va Med 1959;86:396-401.
8. McCollough NC, Gennaro JF, Jr. Evaluation of venomous snakebite in the Southern United States from parallel and clinical laboratory investigation. Development of treatment. J Fla Med Assoc 1963;49:959-67.
9. Parrish HM. Mapping Maryland's snakebites. MMJ 1965;14:25-33.
10. Wasserman GS. Wound care of spider and snake envenomation. Ann Emerg Med 1988;17:12.
11. Parrish HM. Analysis of 460 fatalities from venomous animals in the United States. Am J Med Sci 1963;245:129-41.
12. Parrish HM, Hayes RH. Hospital management of pit viper venomations. In SA Minton, ed. Snake Venoms and Envenomation. New York: Marcel Dekker Inc, 1971.
13. Gingrich WC, Hohenadel JC. Standardization of polyvalent

antivenin. Buckley EE, Porges N, eds. Venoms. Washington, DC: Am Assoc Advan Sci, 1956:381-85.
14. Schottler WHA. Experimental study on the importance of early antivenin treatment in snake bite. Am J Trop Med Hyg 1952;1:1038-42.
15. Gennaro JF Jr. Observations on the treatment of snakebite in North America. In Kegan HL, MacFarlane WV. Venomous and Poisonous Animals and Noxious Plants of the Pacific Region. New York: Pergamon, 1963:427-49.
16. Minton SA Jr. Variation in venom samples from copperheads and timber rattlesnakes. Copeia 1953;4:212-15.
17. Wingert WA, Chan L. Rattlesnake bites in Southern California and rationale for recommended treatment. West J Med 1988;148:37-44.
18. Parrish HM, Kahn MS. Snakebite during pregnancy. Obstet Gynecol 1966;27:468-71.
19. Ya PM, Perry JF. Experimental evaluation of methods for the early treatment of snakebites. Surgery 1960;47:975-81.
20. Reid HA. The principles of snakebite treatment. Clin Toxicol 1970;3:473-82.
21. Parrish HM. Treatment of poisonous snakebites: Present status of incision and excision. J Indiana Med Assoc 1960;53:1879-83.
22. Garfin WR, Castilionia RR, Mubarak SJ et al. Role of surgical decompression in the treatment of rattlesnake bites. Surgical Forum 1979;30:502.
23. Ledbetter EO, Kutscher AE. The aerobic and anaerobic flora of rattlesnake fangs and venom. Therapeutic implications. Arch Environ Health 1969;19:770-78.
24. Parrish HM, MacLaurin AW, Tuttle RL. North American pit viper: Bacterial flora of mouths and venom glands. Va Med 1956;83:383-85.

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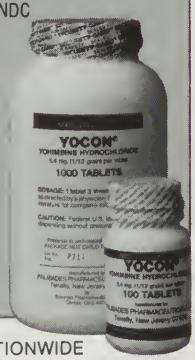
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References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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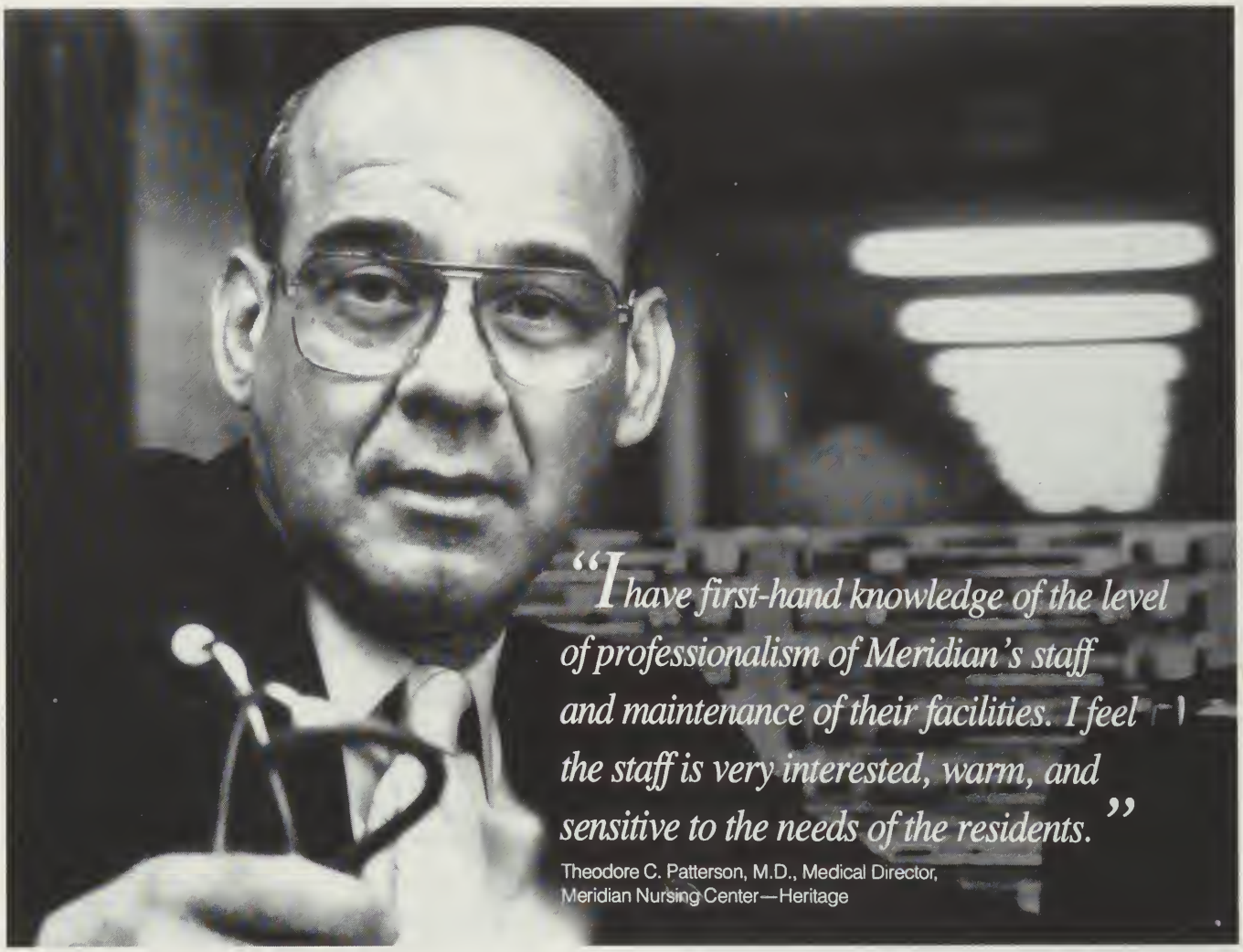
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Drowning is death by suffocation after immersion/submersion in liquid, while near-drowning is survival, if only temporarily, after suffocation by immersion in liquid.[1] Secondary drowning refers to death 24 hours after initial submersion due to complications of initial injury despite apparent successful resuscitation.

Epidemiology

Drowning is the second leading cause of accidental death among children less than 14 years old (Table 1). It ranks third as a cause of all deaths (after motor vehicle accidents and cancer) in this age group.[2]

The danger of drowning peaks in two particular age groups - teenage boys and toddlers. Teenage boys are at peril due to risk-taking behavior in water-related activities including swimming, diving, and boating. Their increased risk is related to sociocultural behavior patterns as well as drug and/or alcohol exposure.

Toddlers are at a particular risk for drowning and near-drowning accidents due to their curious nature and inability to physically extricate themselves from a pool or bucket and are especially vulnerable to household accidents involving bathtubs, toilets, and washing machines.[2,3]

Forty percent of drowning victims in the United States are less than 4 years old.[4] Most of these drownings take place in swimming pools or natural bodies of water, and most of these accidents are related to inadequate supervision of naturally curious children.

Boys are more often drowning victims in both toddler and teenage groups. There are many more teenage boys involved in drowning accidents than girls of similar age.

Another at-risk group includes children with a seizure disorder. The risk in this group is thought to be four to five times that of other children and is increased among those with poor seizure control, by changes in medications, or by mental impairment.[5]

Table 1. Accidental Deaths in Children Through Age 14, Maryland 1986 and 1987

	Motor Vehicle	Drowning/Submersion
Under 1 year		
1986	3	2
1987	2	4
1 - 4 years		
1986	12	10
1987	8	4
5 - 14 years		
1986	33	7
1987	37	6

SOURCE: Maryland Department of Health and Mental Hygiene, Center for Health Statistics.

Pathophysiology

Asphyxia with hypoxemia due to pulmonary impairment is the common denominator leading to morbidity and mortality with drowning/near-drowning accidents. Thus, the duration of hypoxemia is the most important determinant of outcome.[4]

There are theoretical differences in the pathophysiology of salt and fresh water drowning due to differences in fluid composition. Ninety-eight percent of drownings occur in fresh water.[4] Hypotonic fresh water would be expected to move through alveoli into intravascular space to cause dilutional effects (hyponatremia, hypervolemia). Hypertonic salt water would be expected to withdraw fluid into alveoli and this to result in hypernatremia. However, both salt and fresh water damage the normal surfactant lining of alveoli and damage basement membranes allowing intra-alveolar fluid collection or pulmonary edema. This causes atelectasis, poor pulmonary compliance, and impaired gas exchange leading to hypoxemia with right to left intrapulmonary shunting (Table 2).

The electrolyte and fluid shifts, seen in near-drowning or drowning victims, usually are not of clinical significance as the body compensates for such changes.

Stages of drowning With unexpected submersion, victims initially aspirate a small amount of liquid, causing laryngospasm lasting about two or three minutes. With hypoxia and panic, the victim begins swallowing water. In most victims persistent hypoxia causes relaxation of laryngospasm and pulmonary aspiration of fluid. However, in 10 to 15 percent of victims, laryngospasm recurs with repeated aspiration of fluid leading to a "dry drowning." After three to six minutes, circulation is impaired. Central nervous system damage is apparent by six to nine minutes.[4] The onset of hypoxic damage depends on a number of factors including oxygen consumption, water temperature, and age. With continued asphyxia, the hypoxic changes are irreversible and affect many organ systems, the brain in particular. The heart is less vulnerable to ischemia, taking much longer than the brain to sustain permanent damage.[4] Thus, a victim with irreversible brain damage may have cardiac function.

Table 2. Pulmonary Pathophysiology

Surfactant impairment
+
Intra-alveolar fluid
↓
Atelectasis

Ventilation/perfusion mismatch
↓
Hypoxemia

Ineffective ventilation
Increased work of breathing
↓
Respiratory failure

Pulmonary pathophysiology Pulmonary changes seen include pulmonary edema and alveolar inflammation. These changes also are present in so-called "dry drowning" due to hypoxemia and impaired circulation.[4] Additional damage can occur if gastric contents or contaminated fluid are aspirated.

Aspirated material can lead to bronchoconstriction, while hypoxia can worsen pulmonary capillary leak due to pulmonary hypertension. Pulmonary edema, decreased effective surfactant, and bronchoconstriction increase the work of breathing, impair effective ventilation, and eventually lead to respiratory failure.

Other organ involvement Damage to other organ systems may result from anoxia including anoxic encephalopathy, cardiac irritability with arrhythmias (especially in hypothermic situations), and acute tubular necrosis.

Treatment

By definition, "drowning" results in death, thus the focus of medical care is on the treatment of near-drowning victims. The most important aspect of treating a near-drowning victim is the institution of effective resuscitation at the earliest possible moment. This means starting mouth-to-mouth breathing as soon as the victim is brought to the surface. Take care to clear the mouth of any debris or vomitus that may be obstructing the airway. Begin mouth-to-mouth immediately after checking the airway and while applying slight cricoid pressure to decrease vomiting risk from gastric insufflation. Keep the neck stable in the event of a neck injury.

Do not waste time trying to remove fluid from the lungs. Such maneuvers are usually ineffective as the fluid will be absorbed through the alveoli quickly and vomiting may result in a further risk of aspiration. Cardiac compressions will not be effective while the patient is in the water and should be approached cautiously in the hypothermic individual due to cardiac instability.

When rescue help is available, resuscitation should be continued with a high FIO_2 to maximize oxygena-

tion. Patients who respond with spontaneous respirations with apparent recovery still should be transported to the local hospital for further evaluation and treatment. Minimal evaluation for those apparently recovered near-drowning victims should include chest x-ray, arterial blood gas or pulse oximetry.

Any patient with resuscitation requirements, loss of consciousness, cyanosis, apnea, or submersion longer than one minute should be observed in the hospital for at least 12 to 24 hours (Table 3).[2,4] Some victims without symptoms and with normal chest x-ray evaluation in the emergency department have developed respiratory symptoms as long as 12 hours after a near-drowning episode. The etiology of this delayed reaction may be due to hypoxia, aspiration, or impaired surfactant function. Late onset neurological deterioration related to cerebral edema also has been described. Thus, those victims who appear well on initial hospital evaluation warrant continued observation for 24 hours if they meet the previously described criteria.

Victims who have respiratory symptoms, abnormal chest x-ray, and an oxygen requirement will need more intensive monitoring and treatment. Patients who are apneic, require FIO_2 of greater than 0.5 to maintain a $PaO_2 \geq 90$, have pulmonary edema or hypercarbia should be considered for positive pressure ventilation. Spontaneously breathing cooperative victims may do well with mask continous positive airway pressure (CPAP), otherwise intubation with positive pressure ventilation should be instituted. Oxygen saturation should be maintained at > 90 percent while attempting to minimize FIO_2 and barotrauma. Hyperventilation aiming at a $PaCO_2$ of 25 to 30 may be helpful in cerebral resuscitation. These patients should be monitored carefully with an arterial line, continuous saturation monitoring, and consideration of pulmonary artery catheter. Prophylaxis of pulmonary aspiration or infection with corticosteroids or antibiotics has not been shown to be beneficial.[2] Bronchospasm may be encountered and should be treated with beta agonists.

Victims should be examined carefully for concomitant injuries and a history taken for chronic medical conditions. Other management should be directed at accompanying problems. If the patient is hypothermic (core temperature $< 30°$ C), he/she should be actively rewarmed using warmed blankets, warmed IV fluids and heated humidified oxygen. Intravenous access must be established, but fluids should be kept at 2/3 to 3/4 maintenance after circulatory stability is maintained to avoid fluid overload. A nasogastric tube should be placed to decompress the stomach and minimize the risk of gastric aspiration. Metabolic acidosis should be corrected with sodium bicarbonate after effective ventilation has been established. Fluid output should be monitored, and the victim examined carefully for evidence of trauma. Teenage victims should be examined closely for signs of trauma due to the frequency of near-drowning associated with boating or diving accidents in this age group .

Patients with signs of cerebral anoxia will require the most intensive monitoring and intervention. Their neurologic status should be monitored carefully with serial evaluations using an established tool such as the Glasgow Coma Score.[2] Cerebral resuscitation may require hyperventilation, fluid restriction, osmotic diuresis, elevation of the head of the bed, and seizure control.

A CT scan should be considered to rule out intracranial trauma. Although there is a known correlation between eventual outcome and intracranial pressure, there is no evidence that control of intracranial pressure influences outcome.[3,4] Previous management strategies of barbiturate coma and controlled hypothermia to control intracranial pressure have shown limited evidence of efficacy with significant associated risks and thus are controversial.

The management of near-drowning victims can be quite complex and require invasive monitoring. Patients with respiratory and/or central nervous system impairment from a submersion accident should be stabilized and transferred to an appropriate tertiary care center with *pediatric* intensive care expertise.

All near-drowning victims should be examined for associated problems such as neck injury, evidence of seizure activity, other trauma, intoxication, and child abuse. In cases involving young children, their supervision should be reviewed with consideration of investigation for possible child neglect or abuse. A careful account of the episode should be obtained from an eye-witness if possible. Important information includes a description of the incident leading to the episode, the length of submersion, the type of fluid involved, the time until resuscitation was initiated and response to resuscitation measures.

Table 3. Criteria for Observation of Near-Drowned Victims

Resuscitation measures
Loss of consciousness
Cyanosis
Apnea
Submersion for one minute or longer

Prevention

The most effective treatment of submersion incidents is prevention. This becomes more important with ever-increasing number of private pools and spas in this country.[6] Prevention includes improved education, observation, pool barriers, appropriate precautions, and teaching children how to swim.

Observation is often a key factor in drowning episodes.[7] Parents and caregivers must be reminded that toddlers need constant supervision around pools and other household water hazards. Even toddlers who have had swimming instruction may not be able to escape if they fall headfirst into a bucket.

Parents of infants who have received swimming les-

sons should not be overly reassured about their child's ability to avoid drowning.[3,7] Infants and toddlers cannot be made aware of the principles of water safety or how to respond in an emergency.

Teenagers need supervision and education about the dangers associated with boating, diving, and swimming as well as avoidance of mixing these activities with drug or alcohol use. Parents, caregivers, and lifeguards should be trained in cardiopulmonary resuscitation. Children with seizure disorders also warrant careful observation with both swimming and bathing activities. Swimmers should be cautioned not to hyperventilate to prolong underwater time as this may lead to loss of consciousness from hypoxia before increased CO_2 causes dyspnea.[8]

Precautions include outfitting all children and adults with life jackets during boating excursions. Pool and spa barriers should be at least 4.5 ft tall and locked; the pool should be inaccessible from the house. Several groups have estimated that appropriate pool barriers would reduce pediatric drowning incidents by 60 to 80 percent.[6] Communities should be encouraged to require appropriate barriers for private as well as public pools and spas.

Water-related activities are a source of family fun and exercise. However, everyone should be aware of the potential hazard of drowning and near-drowning in adults as well as children. Appropriate instruction needs to be provided to patients and families on how to avoid tragic episodes. Physicians play a key role in providing information to families about appropriate supervision practices, provision of precautionary measure such as life jackets, importance of the knowledge of CPR, and the necessity of adequate pool barriers. Pediatricians also should be aware of the correct initial management of near-drowning victims whether they appear to have recovered from the episode or to require further intensive monitoring.

References

1. Modell JH. Drowning vs. near-drowning: A discussion of definitions. Crit Care Med 1981;4:351-52.
2. Orlowski JP. Drowning, near-drowning and ice-water submersions. Pediatr Clin North Am 1987;34:75-92.
3. Jumbelic MI, Chambliss M. Accidential toddler drowning in 5-gallon buckets. JAMA 1990;263:1952-53.
4. Brooks JG. Near Drowning. Pediatrics in Rev 1988;10:5-10.
5. Orlowski JP, Rothner AD, Leudus H. Submersion accidents in children with epilepsy. Am J Dis Child 1982;136:777-80.
6. Orlowski JP. It's time for pediatricians to 'rally' round the pool fence. Pediatrics 1989;83:1065-66.
7. Quan L, Gore EJ, Wentz K, Allen J, Novak AH. Ten-year study of pediatric drownings and near-drownings in King County, Washington. Pediatrics 1989;83:1035-40.
8. Craig AB. Underwater swimming and loss of consciousness. JAMA 1961;176:255-58.

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Sunlight, Ultraviolet Radiation, and the Skin Excerpts: NIH Consensus Statement

Sunlight, the ultimate source of energy, is vitally important to life, but there is overwhelming evidence that exposure to natural or artificial ultraviolet radiation (UVR) has the potential for causing acute and chronic adverse effects on the skin.

Expanded knowledge about the hazards of UVR has been accompanied by improved approaches to photoprotection and preliminary evidence that suggests it may be possible to inhibit or reverse certain chronic effects of sun exposure.

Considerable controversy remains concerning the specific adverse effects caused by various wavelengths of UVR (primarily the UVA and UVB wavelengths), the magnitude of the adverse effects, and potential strategies for their prevention and/or treatment. In an effort to define the specific interactions of sunlight, UVR, and the skin and to identify methods to prevent and/or treat the adverse effects of UVR, the National Institutes of Health held a Consensus Development Conference on Sunlight, Ultraviolet Radiation, and the Skin in 1989. These are the panel's findings:

The average American's exposure to UVR has increased considerably due to changing lifestyles: more outdoor recreational activities, more emphasis on tanning, scantier clothing, and a population shift to the Sun Belt. In addition, the tanning parlor industry is growing rapidly in the United States; more than one million Americans use commercial tanning facilities every day. Adolescents and young adults, especially women, are the biggest users of tanning parlors. Increased UVR exposure in the future also may result from depletion of stratospheric ozone by manmade chlorofluorocarbons. Experts predict that for every 1 percent change in ozone, there will be a compounded 2 percent increase in UVB levels at the Earth's surface.

UVR exposure causes alterations in all layers of the skin, except perhaps the subcutaneous tissue. Any sunburn or suntan is visible evidence of injury to the skin. The long-term consequences of UVR exposure include the development of skin cancers and premature aging of the skin. In addition, the skin is a major site of immunologic activity, and UVR is capable of affecting the immune system. The only known beneficial effect of exposure to UVR is enhanced production of vitamin D in the skin.

Some exposure to UVR is virtually unavoidable over a person's lifetime. Factors contributing to the amount of exposure one receives depend on climate, geography, occupation, and recreational activities. Other factors that influence susceptibility to UVR include genetic abnormalities, skin type, acquired conditions, certain medications, and chemical exposures in consumer products and industry. The amount of protection afforded by

melanin is unclear, and individuals with dark complexions still are susceptible to UVR-induced photodamage.

UVR exposure is the most common cause of skin cancer. There are a number of preventive steps people can take to reduce the risks of UVR damage. Clothing made of tightly woven fabrics with long sleeves and long pants will provide some protection against UVR. Maximum protection can be obtained by using sunscreens with a sun protection factor of at least 15. Combination sunscreens effective against UVB and UVA are preferable. Daily use is recommended during appropriate times throughout the year.

Half of an individual's lifetime exposure to UVR occurs by the age of 18. To minimize exposure, modified schedules for outdoor activities at schools, camps, day care centers, and beaches should be considered whenever possible. The time of day and year have a major impact on the extent of UVR exposure. If exposure during peak times (between 10 a.m. and 3 p.m.) could be minimized, significant reduction in the number of nonmelanoma skin cancers would certainly follow.

There is a need to better educate persons who use tanning parlors about the hazards of artificial sources of UVR. To protect the public against injury from unintentional UVR exposure, better regulation of these tanning facilities is required.

Recent attention has focused on compounds such as all trans retinoic acid (Retin-A), which has been reported to diminish or remove wrinkles. At this time, there is insufficient evidence regarding any long-term positive or negative effects to recommend the use of Retin-A or similar compounds to treat or reverse the effects of sun-damaged skin.

A number of areas for additional research were identified. The panel urged development of more current data on the incidence of nonmelanoma skin cancers. They also cited a need for more research on the differences between chronological aging and sun-induced aging and to better define the immunologic effects of UVR on the skin. Other directions for future research include: studies to define the action spectra of sunlight and UVR in the pathogenesis of melanoma; development of better animal models to study melanoma; investigation of the biological effects of UVA radiation; additional studies on the importance of UVB radiation in vitamin D homeostasis; new approaches to diminish the risk of sun exposure during childhood and adolescence, such as behavior modification and education; development of more effective sunscreens; monitoring the risk/benefit ratio of widespread, long-term sunscreen use; and more research in the age-related optical properties of skin and acute and chronic responses to UVR. ■

Free, single copies of the complete NIH Consensus Statement on Sunlight, Ultraviolet Radiation, and the Skin *may be obtained from the Office of Medical Applications of Research, National Institutes of Health, Building 1, Room 260, 9000 Rockville Pike, Bethesda, MD 20892.*



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Case Report: Thoracic Spine Schwannoma: The Role of Gd-DTPA Enhanced MRI

James S. Lim MD, Henry Wang MD, John Griffin MD, and Donlin M. Long MD, PhD

Drs. Lim and Wang are from the Neuroradiological Division of the Russell H. Morgan Department of Radiology and Radiological Sciences, Dr. Griffin is from the Department of Neurology, and Dr. Long is from the Department of Neurosurgery of the Johns Hopkins Medical Institutions, Baltimore. **Reprint:** *Henry Wang MD, Department of Radiology, Johns Hopkins Hospital, 600 N. Wolfe St., Baltimore, MD 21205.*

With the advent of MRI, spinal lesions can now be evaluated noninvasively. Knowing the location of the spinal lesion, its morphology and signal characteristics can narrow the differential diagnosis.

Magnetic resonance imaging (MRI) allows spinal lesions to be evaluated noninvasively. Knowing the location of the spinal lesion (intramedullary, intradural extramedullary, extradural), its morphology and signal characteristics can narrow the differential diagnosis. With the availability of intravenous contrast (gadolinium diethylene triamine pentaacetic acid, Gd-DTPA), MRIs sensitivity and specificity are further improved and lesions better defined. We report a case of thoracic schwannoma where Gd-DTPA was important in arriving at the proper diagnosis.

Case Report

The patient was a 37-year-old man with a two-year history of paresthesias of his hands and feet and right lower extremity weakness. He also had Castleman's disease with resection of a retroperitoneal mass and right sympathectomy about three and a half years ago. Neurologic workup (including brain stem evoked potential, visual evoked potential, nerve conduction studies, cervical spine MRI) and lumbar spine CT and MRI were normal. Laboratory tests were normal except for increased protein in the CSF.

One month prior to admission, the patient had experienced decreased lower extremity sensation, urinary hesitancy, and bowel urgency.

An MRI of the thoracic spine showed an intradural extramedullary mass at T-8, which was isointense with CSF on T-1W, inhomogeneously isointense with CSF on T-2W (Figures 1a and 1b), and intensely enhancing after Gd-DTPA intravenous injection (Figures 2a and 2b). During surgery, a large mass was seen attached to three posterior roots. Pathologic examination revealed a firm, fleshy, gray/white mass identified as schwannoma. The patient's urinary hesitancy resolved.



Figure 1a. Sagittal T-1WI (TR = 600ms; TE = 20ms) shows a hypointense (to spinal cord) extramedullary lesion dorsal to the spinal cord at T-8.



Figure 1b. Sagittal T-2WI (TR = 2000ms; TE = 100ms) shows a hyperintense extramedullary lesion partially obscured by the surrounding CSF.

Discussion

Neurinoma, schwannoma, neurilemmoma, neurofibroma, and perineural fibroblastoma are nerve sheath tumors that may be related to the Schwann cell.[1] Under light microscopy, two tumor types are distinguished: neurinoma or schwannoma, and neurofibroma associated with von Recklinghausen's disease. Schwannoma can occur in intracranial and spinal nerve roots, peripheral nerves, and nerve endings. This tumor accounts for 25 to 29 percent of spinal tumors with slight predilection for the lumbar spine.[2]

Prior to MRI, myelography, with or without CT scans, was required for imaging of spinal lesions. Its soft tissue sensitivity and multiplanar capability allows the MRI to identify and distinguish most spinal lesions.[3,4] Signal characteristics of intramedullary lesions are nonspecific, but intradural/extramedullary lesions often have signal characteristics that vary with specific histology.

Schwannomas generally are isointense with CSF on both T-1W and T-2W, making them sometimes difficult to define within the CSF. Meningiomas are isointense with spinal cord on both sequences and more easily defined.[4]

Because of schwannoma's instrinsic signal charac-



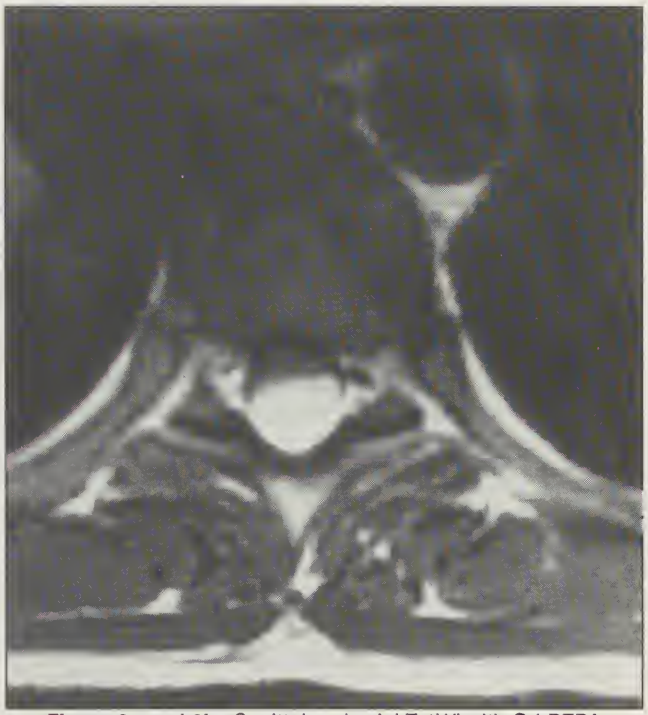


Figure 2a and 2b. Sagittal and axial T-1WI with Gd-DTPA enhancement (TR = 600ms; TE = 20ms) show a homogeneously, hyperintense extramedullary and intradural lesion.

teristics, we found Gd-DTPA-enhanced MRI to be quite helpful in defining this extramedullary lesion and suggesting its nature. In this case, the homogeneous enhancement indicates a solid tumor and not an arachnoid cyst.

References

1. Rubenstein LJ. Tumors of the central nervous system. Atlas of Tumor Pathology. Second Series Fascicle 6. Bethesda, MD: AFIP, 1972.
2. Shapiro R. Myelography, 4th ed. Chicago, IL: Year Book Medical Publishers, 1984.
3. DiChiro G, Doppman JL, Dwyer AJ et al. Tumors and arteriovenous malformations of the spinal cord: Assessment using MR Radiology 1985;156:689-97.
4. Takemoto K, Matsumura Y, Hashimoto H et al. MR imaging of intraspinal tumors - Capability in histological differentiation and compartmentalization of extramedullary tumors. Neuroradiology 1988;30:303-309. ■

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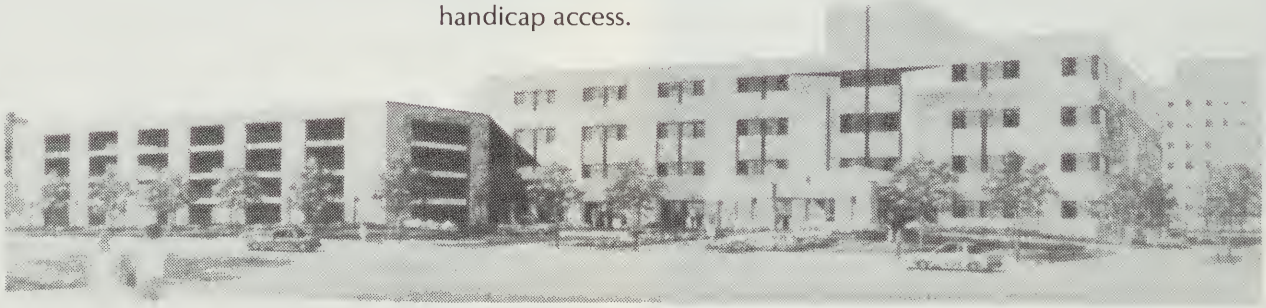
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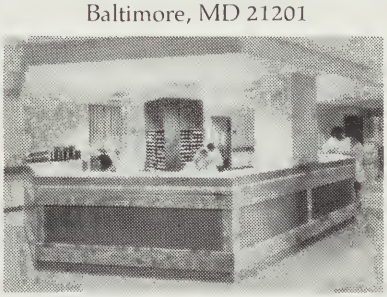


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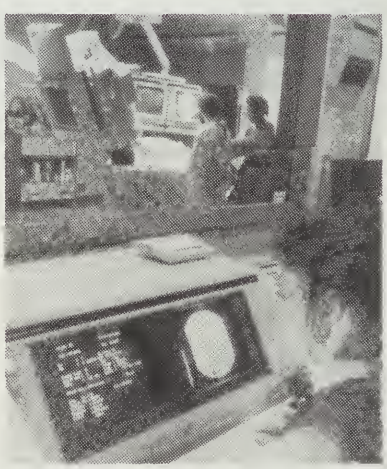
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Centralized Credentialing: State-of-the-Art Confidential Clearinghouse

Joseph E. Jensen

The author is Acting Director, Healthcare Credentials Verification, Inc., a joint project of the Medical and Chirurgical Faculty of Maryland and the Maryland Hospital Association.

In Maryland, a single organization serves as a clearinghouse for gathering and making available to hospitals those documents needed to verify a physician's credentials.

The average Maryland physician has privileges at four hospitals. That means most doctors have filled out four lengthy application forms and have provided four copies of their medical school diplomas, state licenses, board certification status, DEA certificates, state drug dispensing registrations, malpractice insurance policies, and so on to document and account for every moment of time since they graduated from medical school.

Each hospital in turn, devotes as much as seventeen hours of staff time per physician writing to the medical school, state licensing boards, specialty boards, federal and state agencies, residency programs, insurance companies, and other hospitals to obtain independent verification of each physician's credentials. Every two years the whole process is practically repeated at each hospital as each physician goes through the process of applying to be reappointed to the medical staff.

With centralized credentialing, a single organization serves as a clearinghouse for gathering and making available those documents needed to verify a physician's credentials.

A physician fills out only one application form, and that form is used by all participating hospitals. When the physician comes up for reappointment, the physician verifies and updates the information previously provided.

The clearinghouse staff write to each source to verify the physician's background and references, and maintain these documents in a single file, instead of each hospital gathering and building duplicate files. The credential clearinghouse provides a

Editor's Note:

This article is an example of what will appear in the Faculty's soon-to-be published *Physician's Practice Digest* (*PPD*), a publication created to inform Maryland physicians on issues surrounding the business side of today's medical practice. The first issue of *PPD* is scheduled to be off press by mid-Fall 1990.

If you have any comments or suggestions or desire to contribute articles to the *PPD*, please send correspondence to Editor, *Physician's Practice Digest*, 1211 Cathedral St., Baltimore, MD 21201.

certified copy of a physician's file for the use of each hospital's credentials committee.

Benefits of Centralized Credentialing

Centralized credentialing benefits everyone involved. Physicians save a great amount of their own and their office staff's time by filling out only one application for medical staff privileges, instead of three or four. They need make only one copy of their supporting documents. If there are any questions, they answer only one phone call.

Hospital medical staff offices benefit because they can devote their staff time to evaluating the physicians' credentials. Hospital chiefs of staff and department heads will get a single letter asking for an evaluation of a physician's performance rather than four for each physician.

The state licensing boards will benefit because they receive a single letter (rather than four) asking for verification that a physician is licensed and in good standing. The same can be said for medical schools, residency programs, specialty certification boards, and similar organizations.

It is also possible to speak of the benefits to the credentialing process as a whole. In planning the operations of the credentialing service, in designing the forms, and in establishing the procedures it has been possible to combine the best of each hospital's experience with credentialing. The agreed-on uniform application forms and standard streamlined procedures for gathering the supporting verification documents bring a consistency to the credentialing process. That is good for hospitals. It's good for physicians. And it's good for patients.

Questions and Answers

Is centralized credentialing available in Maryland? Yes! Healthcare Credentials Verification, Inc. (HCV) was incorporated February 2, 1990 as a joint project of the Medical and Chirurgical Faculty of Maryland and the Maryland Hospital Association. Thirty-five Maryland Hospitals have joined the credentialing service. HCV began building physician files in June and by September will be processing physician's applications for appointment and reappointment at all 35 hospitals.

HCV is in close contact with the Maryland Board of Physician Quality Assurance, the DHMH Division of Licensing and Certification, and the Joint Commission for the Accreditation of Health Care Organizations (JCAHO). HCV's files and operations meet all regulatory requirements of these agencies.

Does HCV actually do the credentialing? No, credentialing is the responsibility of each hospital's board of trustees with the advice of the medical staff.

HCV serves a single function. It is the comprehensive and confidential clearinghouse for all the documents and references that Maryland law and the JCAHO require a hospital to gather and review when considering appointing a physician to the medical staff and renewing each physician's appointment every two years.

HCV makes no judgment about the documents or the information they contain. Each hospital's medical staff must review the applications, documents, and references and then offer the appropriate recommendations to the hospital board of trustees regarding each physician's appointment or reappointment.

How does a physician use HCV? If a physician is seeking privileges for the first time at a hospital, the physician contacts the hospital medical staff office, as has been done in the past. After it has determined that the physician meets any criteria that the hospital might have for appointment (for example, having an office within a certain distance from the hospital) the hospital will ask HCV for the documents and references needed to support the physician's request for privileges.

HCV will send to the physician a uniform medical staff application form and a form authorizing other organizations and individuals to release information to HCV and for HCV to release the information to hospitals where the physician seeks privileges or currently practices.

The form already will contain some information about the physician. The physician is asked to complete, correct, and update all the information on the application and return it along with the authorization form to HCV.

HCV will gather from the original sources any needed documents not in its file or that, on the basis of the application, require updating. HCV will keep both the physician and the hospital informed of any documents it is having difficulty gathering (such as certificate of graduation from a no longer existing medical school, residency program not responding, etc.).

HCV will send periodic follow-up requests, telephone nonrespondents, and send requests by certified mail if necessary. Within 60 days, HCV will provide the hospital with a certified copy of the necessary documents and references and notify the physician that the process is completed.

One hundred eighty days prior to when a physician is due for reappointment, HCV will notify the hospital and request authorization to begin the reappointment process.

HCV will then send the physician a reappointment application form with the information from previous and other appointments. Again, the physician is asked to verify, correct, and update this information and return the form to HCV. HCV will gather the additional documents and materials necessary to update the information and within 60 days send a certified copy of the documents needed for reappointment to the hospital.

HCV also will track for each physician key expira-

tion dates on such things as state licensure, DEA and CDS licensure, and malpractice insurance. HCV automatically seeks verification that such licenses and policies have been renewed as part of the process of keeping each physician's file as current as possible.

Can a physician apply to HCV directly? No. Physicians must follow the application process of those hospitals where they seek or hold privileges. Where a physician seeks or holds privileges at a hospital that does not subscribe to HCV's services, the physician is encouraged to discuss HCV with the chief of the medical staff and the hospital administration.

What about confidentiality? House Bill 1255 of 1990 specifically determined that Healthcare Credentials Verification's files are confidential and not subject to disclosure. HCV's files cannot be subpoenaed.

HCV will gather a physician's documents only if authorized by the hospital and the physician. HCV gathers and maintains only the information required by state regulations as part of the hospital credentialing process. It will release the documents only to the hospital's credentialing committee.

HCV's policies regarding the confidentiality of its files are developed with input from the Medical and Chirurgical Faculty's Hospital Medical Staff Committee.

Six physicians, appointed by the Medical and Chirurgical Faculty, sit on HCV's board of directors, which establishes HCV's policies governing the gathering and release of information.

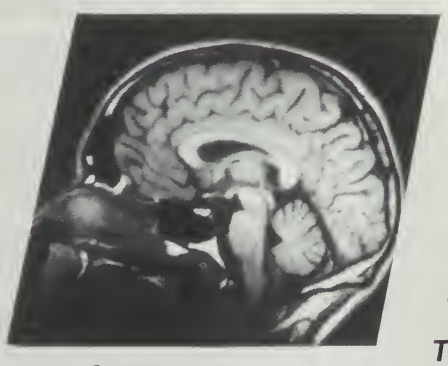
HCV's files are kept in a separately secured and alarmed area that is accessible only to HCV's credentialing staff. Maintenance and housekeeping personnel never have access to the file area. No files or documents are left outside the file area when not in use.

Who pays for centralized credentialing? Healthcare Credentials Verification contracts with each of its participating hospitals for its services. Hospitals are charged a fee for each initial appointment and each reappointment processed. HCV does not charge or bill physicians.

Some hospitals absorb these fees. Others pass part or all of the fees on to their physicians as part of their application fees and medical staff dues. ■

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MMPAC

Mr. President and Members of the House of Delegates:

The Maryland Medical Political Action Committee (MMPAC) has enjoyed tremendous success over the past year. One of the most encouraging trends is the increasing participation of physicians in the political process. It is becoming increasingly apparent that decisions affecting our practices and the lives of our patients are being made in the political arena. Traditionally, medicine has found few allies in carrying out the task of providing the highest quality healthcare.

In a time when most business and labor organizations are advocating "cutting healthcare costs at all costs," we physicians find ourselves fighting to preserve the health and well-being of our patients against mounting pressure by insurance carriers to reduce care to patients. MMPAC has become the voice of the practicing physician. It has become the vehicle by which our views can be expressed to elected representatives who are deciding issues that affect public health policy. MMPAC is the only political action committee that presents the views and concerns of practicing physicians to elected representatives.

This year has been particularly important to the needs of physicians because all state representatives are up for reelection in 1990; this has provided MMPAC with a unique opportunity to have an impact on public policy. MMPAC has reviewed the records of legislators and has supported those incumbents who have supported the concerns of physicians. Similarly, MMPAC has interviewed those candidates seeking office and analyzed whether they represent the best chance of preserving the highest standards of healthcare.

In targeting measures for defeat, the political action committee works through a network of key physician contacts. MMPAC has physicians in each legislative district who can be called into action at a moment's notice to contact their local elected officials. This system can place literally hundreds of calls into an official's office in a very short period.

During the 1990 Maryland General Assembly, MMPAC helped defeat an ever-growing list of threats to physician autonomy. Some of the measures defeated included:

1. Mandated Medicare Assignment
2. Mandated Medicaid Assignment tied to medical licensure
3. Reversal of Tort Reform measures
4. Regulation of physician fees by Health Care Services Cost Review Commission
5. Prohibition of physician investment in ancillary healthcare services

In general, decisions about political action and contributions are made by the MMPAC Board of Directors, which comprises a democrat and republican physician from each congressional district. The MMPAC Board also has a number of at-large members. Committee officers are elected during the annual meeting of Med Chi in odd-numbered years. Bipartisan and administered in a democratic fashion, MMPAC draws its strength from grass-roots support of physicians who pay a $100 membership fee that entitles them to membership not only in the Maryland Medical Political Action Committee but also in the American Medical Political Action Committee (AMPAC), which ensures our voices are heard at the federal level.

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References

1. *USP DI Update, September/October 1988, p 120.*
2. *Br J Clin Pharmacol 1985;20:710-713.*
3. *Data on file, Lilly Research Laboratories.*
4. *Scand J Gastroenterol 1987;22(suppl 136):61-70.*
5. *Am J Gastroenterol 1989;84:769-774.*

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2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

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Drug Interactions—No interactions have been observed with theophylline, chlordiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H_2-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H_2-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H_2-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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The Duty to Warn: The Present Law

Historically, communications between patient and physician have been considered confidential. In describing the rationale for this confidentiality Freedman and Redlich maintain that divulging information could be harmful to the patient and the treatment and, therefore, should not occur. Patients "would be deterred from seeking treatment." They "would not trust" their therapists if they felt confidential information might be divulged. This lack of trust would undermine treatment. Freedman and Redlich note that the "ultimate principle is not silence at any cost but what is in the patient's best interest."[1] What was in the patient's best interest was strongly skewed toward keeping confidentiality.

In 1967 a chapter on forensic psychiatry by Dr. Lawrence Freedman, in a major textbook of psychiatry, noted that psychiatrists have an "ethical imperative" to hold everything patients may say in "strict confidence." The discussion of divulging confidential information was conceptualized in terms of legal interactions as, for example, whether and when to divulge information in the courtroom. A discussion of the subject of unpredictable homicide by schizophrenic patients noted the harm to bystanders being injured or killed. However, no mention of warning potential victims was made. Likewise, there was no mention of homicidal ideation of nonpsychotic patients or of a duty to warn in these situations.[2]

Before 1974, the duty of confidentiality rarely was questioned by either the professional community or the lay public. Health professionals as a group generally were not seen as being legally responsible for the safety of others. In fact, physicians could risk legal consequences if they breached confidentiality in order to warn others who might be at risk.[3] A patient could argue that he/she had no actual intention to harm, that his/her homicidal thoughts were only fantasy, and that no injury had been done. Since no injury had been done, a physician was not seen as having the right or responsibility to divulge confidential information to others. The *Tarasoff* decision in 1974 changed this balance between confidentiality and a duty to warn.

The *Tarasoff* case involved a patient who was in psychiatric outpatient treatment at a mental health clinic at the University of California. In the course of treatment sessions, the patient revealed his wish to kill a young woman who "was readily identifiable" at Tatiana Tarasoff. The case was discussed with two psychiatrists at the clinic, and on their advice, the treating psychologist wrote a letter to the university campus police requesting that they apprehend the patient for hospitalization. The police questioned the man, found him "rational," and released him upon his promise not to harm Tarasoff. The patient subsequently murdered Tarasoff. In litigation, the parents of the victim brought legal suit against all involved for not warning their daughter of the threat against her life.[3]

The lower court and the Court of Appeals rejected the plaintiffs' allegation. But the California Supreme Court (1974) upheld it,[4] declaring that clinicians have a legal duty to warn victims of foreseeable violence. The judge writing the majority opinion stated, "protective privilege ends where public peril begins." Clinicians now had a duty not only to patients but also to potential victims of patients' violent actions.

Two years later (1976),[5] this duty was modified into a duty to protect. "When a therapist determines or should determine that his patient presents a serious danger of violence to another, he incurs an obligation to use reasonable care to protect the intended victim against such danger."[6] Confidentiality had changed into what Cohen[3] calls a "concealed knowledge of the therapist" when the danger of severe injury or murder existed for a third party. Clinicians now faced a double bind in which both breaching and not breaching of confidentiality were possible grounds for litigation against them.

Although the 1974 *Tarasoff* decision was legally binding only in California, the "spirit" of *Tarasoff* was felt in the other states, including Maryland. Clinicians began more often to warn potential victims, thereby risking a breach of confidentiality lawsuit under Maryland statute.[7] Each clinician had to rely on his or her own individual thinking in making difficult decisions about whether to divulge confidential data. Therefore, formal standards were needed to outline the relationship between patient needs and public safety.[3]

The following case example illustrates the "double bind" clinicians faced between 1974 and 1989: A man in his thirties is admitted to the hospital for a medical procedure and in a comment unrelated to his illness states his intention to kill his wife. In a subsequent interview with the psychiatrist, the patient explains that he and his wife have had a stormy relationship, filled with turmoil, fights, and separations. They are currently together, but she has threatened to leave him and to prohibit him from visiting with their young daughter. The patient is not psychotic or paranoid but believes his wife has been seeing another man. He first began to suspect it several years earlier while in jail for theft. There was a history of prior assault and battery of his wife, requiring stitches in an emergency room and time lost from work. She had not filed charges against him. He had also served a previous jail term for choking a former girlfriend to the point of unconsciousness.

At the end of the interview, the patient stated he felt much better now that he had "spilled my guts" and that he no longer felt like killing his wife. The psychiatrist, concerned and uneasy about the man's impulsiveness

and past history of violence, wondered whether the patient, perhaps after a minor slight of some sort, again might feel homicidal toward his wife and act on his feelings. The psychiatrist wondered if he should call the wife to warn her, in the spirit of *Tarasoff*.

As if knowing what the psychiatrist was thinking, the patient reiterated he no longer had any feelings or thoughts of killing his wife. He added that he did not want the psychiatrist to call or communicate with his wife or to say anything of this conversation, because the patient felt to do so would irreparably harm their relationship, even end it. He said, "she would leave me if she knew I had thoughts of killing her." The patient feared that he would also lose all contact with his little girl.

In this case, the double bind faced the clinician squarely: both breaching and not breaching confidentiality could be grounds for litigation against him.

In July 1989 a new Maryland law created standards for healthcare providers and administrators regarding the duty to warn and to protect.[8] Incorporating both a duty to warn and a duty to protect, the Maryland law applies not only to specialists in mental healthcare but also to all healthcare providers or administrators whose professional duties bring them into contact with patients evidencing these kinds of specific mental health needs and problems.

The law is divided into three parts: (1) setting forth the circumstances, (2) setting forth the duty, and (3) describing the exception to the law of confidentiality. In the first part, the law states,

> a cause of action or disciplinary action may not arise against any mental health care provider or administrator for failing to predict, warn of, or take precautions to provide protection from a patient's violent behavior unless the mental health care provider or administrator know of the patient's propensity for violence and the patient indicated to the mental health care provider or administrator, by speech, conduct, or writing, of the patient's intention to inflict imminent physical injury upon a specified victim or group of victims.

When a patient's intention to inflict imminent physical injury is so communicated, the professional has the duties as set forth in the second part of the law.

> The duty...is...discharged if mental health care provider or administrator makes reasonable and timely efforts to 1) seek civil commitment of the patient; 2) formulate a diagnostic impression and establish and undertake a documented treatment plan calculated to eliminate the possibility that the patient will carry out the threat; or 3) inform the appropriate law enforcement agency and, if feasible, the specified victim or victims of a) the nature of the threat; b) the identity of the patient making the threat; and c) the identity of the specified victim or victims.

Thus the requisite duty is spelled out very simply and clearly.

In the third part of the law, the exception to the duty of confidentiality is described.

> No cause of action or disciplinary action may arise under any patient confidentiality act against a mental health care provider or administrator for confidences disclosed or not disclosed in good faith to third parties in an effort to discharge a duty arising under this section.

The new law is a tangible effort to resolve the "double-bind" dilemma that clinicians have been facing in Maryland for the past 15 years. Clinicians now are protected in taking appropriate, decisive steps to warn and/or protect a third party from the dangerous threats of a patient.

But what of the cautions uttered by our colleagues in the 1960s who were concerned about the loss of treatability through divulging of confidentiality? An uncertain therapeutic price will no doubt be paid by preserving the legal directives embodied in the law. Some threats undoubtedly will be resolved by a therapeutic discussion of the wish and by following the legal requirements set forth in the law. Difficulties may arise in implementation of the law regarding the definition of specific words and circumstances. For example, there may be disagreements about what is a "foreseeable occurrence," what is a "propensity" for violence, and what is an "imminent" risk of danger. When is a danger considered to be present? How can one distinguish clearly the difference between fantasy of violence and an expression of an actual intent to inflict injury? What kind of violence does the law imply? What if the patient only says he's going to "rough a person up," but he has no intent to murder him? What would the clinician's duty be then?

The intent of the law appears to encourage each clinician to use professional judgment in deciding if a patient appears to represent a manifest risk of severe injury to a third party. Professional judgment is required by a clinician or an administrator to determine whether the duty of the law needs to be put into action in any individual case. We hope the new law will provide clarity for the ambiguity that has existed since the *Tarasoff* decision of 1974.

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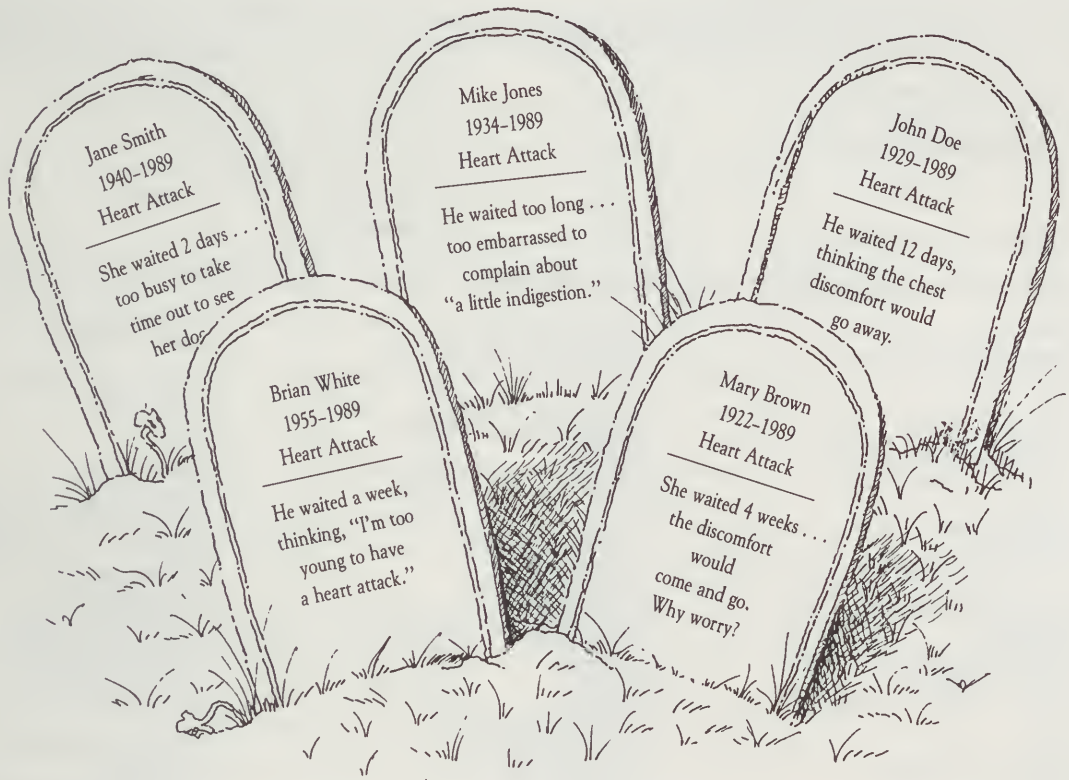
GARY W. NYMAN MD, MBA
Clinical Professor of Psychiatry, University of Maryland
Chief of Psychiatry, Dept. of Veterans Administration Medical Ctr.

References

1. Redlich FC, Freedman DX. The Theory and Practice of Psychiatry. New York: Basic Books, 1966:792-93.
2. Freedman AM, Kaplan HI. Comprehensive Textbook of Psychiatry. Baltimore: Williams & Wilkins, 1967:1590.
3. Cohen RJ. Malpractice. New York: Free Press, 1979:223.
4. Tarasoff v. Regents of University of California, 13 Cal. 3d 177, 529 P. 2d 553, 118 Cal. Rptr. 129 (1974).
5. Tarasoff v. Regents of University of California, 17 Cal. 3d 425, 551 P.2d 334, 131 Cal. Rptr. 14 (1976).
6. Talbott JA, Hales RE, Yudofsky SC. Textbook of Psychiatry. Washington: American Psychiatric Press, 1988:1081.
7. Md. Cts. & Jud. Proc. Code Ann. 9-109 (1989).
8. Md. Cts. & Jud. Proc. Code Ann. 5-316 (1989). ■

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Help eliminate the fatal delay. Free VCR tapes are available on how to set up early cardiac care in your hospital's emergency room and network with the community using a heart attack educational outreach program. Call **(301) 368-3217,** or write to Dr. Raymond D. Bahr, St. Agnes Hospital, 900 Caton Avenue, Baltimore, MD 21229.

St Agnes Hospital

ICD-9-CM RBRVS RCT HCFA BPQA

PPO IPA ACEP

Confused?

DHMH DRG HMO

Most people are when it comes to medicine today. Increased communication is the only way physicians can help improve the public's understanding of medicine. In an effort to promote communication, Med Chi is seeking physicians to participate in a Speaker's Bureau.

As a Bureau Speaker, you help strengthen physician's public image by projecting an accurate representation of the goals and values of all Maryland medical professionals.

To become a member of Med Chi Speakers Bureau simply complete the address information, check the appropriate topic(s) listed below, and mail this form to Betsy Newman, Public Relations, Med Chi, 1211 Cathedral Street, Baltimore, MD 21201.

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__Cancer
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__Child Abuse
__Cholesterol & Diet
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__Colds & Flu
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__Dermatology
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__Downs Syndrome
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__Eating Disorders
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__Fractured & Broken Bones
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__Gallbladder Trouble
__Gastrointestinal Disorders
__Genetics
__Geriatric Health & Disease
__Glaucoma

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__Kidney & Urinary Tract

__Lasers in Medicine
__Learning Disabilities
__Leukemia
__Low Blood Pressure
__Lung Disease
__Lupus Erythematosus

__Mammography
__Medicaid/Medicare
__Men's Health Concerns
__Meningitis
__Menstruation/Menopause
__Mental Health/Illness
__Mumps, Measles, Chickenpox
__Multiple Sclerosis

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__Pain
__Parkinsonism
__Plastic Surgery
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__PMS
__Pneumonia
__Prescription Drugs
__Pregnancy, Childbirth & Infancy
__Preventative Medicine
__Professional Liability
__Poison Control in Your Home
__Psychosomatic Illness

__Radiation Therapy for Cancer
__Radiology
__Rehabilitation/Physical Therapy
__Reye Syndrome
__Rheumatic Fever

__Safety Tips
__Senility & Aging
__Sexually Transmitted Diseases
__Sickle Cell Anemia
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__Sleep Disorders
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__Socialized Medicine
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__Surgery -- What to Expect

__Teen Pregnancy
__Transplants
__Trichinosis & Other Parasites
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__Weight Loss
__Women's Health Concerns

__Other

To Register for the Speakers Bureau by phone, contact Betsy Newman, Public Relations for Med Chi at (301) 539-0872 or in Maryland 1-800-492-1056.

Peripheral Neuropathy

Doctor, For about six months, I have had a tingling sensation in my feet that is more annoying at night. My feet feel numb, and sometimes I have a sensation that I have socks on when I do not. What is my problem, and what can I do about it? Is it a complication of my diabetes?

The symptoms you describe are typical of those noted in peripheral neuropathy commonly seen in persons over 30 years old who have had diabetes for ten or more years. Any or all of the diabetic neuropathic syndromes may be the initial clinical manifestation of diabetes in the absence of covert evidence of a carbohydrate metabolic disorder. At times diabetic neuropathy may be very painful, almost driving one to the point of taking narcotic drugs for relief.

Peripheral neuropathy may be either sensory, motor, or combined in its manifestations. In the sensory type, most often the form first recognized by the patient, the nerves of sensation are involved with symptoms of tingling, numbness, pain, and loss of tactile and/or temperature sensation. In motor neuropathy the muscles of the extremities show myopathy, particularly those of the hands and feet. Often there is a feeling of heaviness of the extremities with some loss of coordination and dexterity.

Elaborate neurological testing procedures can be conducted to demonstrate diminished sensory and motor nerve conduction and to prove the diagnosis, but the symptoms and clinical appearance are so typical that such testing often is not done unless required for a disability or legal problem. Clues include bilateral absent ankle jerks, diminished tactile sensation, and bilateral interosseus muscle atrophy of the hands that are otherwise unexplained.

Treatment

There are no panaceas for success. Phenytoin and carbamazepine have been found helpful in about 50 percent of the patients. Both preparations have appreciable side effects and should be used under close supervision. Because a considerable amount of depression accompanies both diabetes and neuropathy, amitriptyline and fluphenazine seem to help many patients.

It is essential to achieve the best possible control of the diabetes to prevent a worsening of the problem. Prevent injury to numb and insensitive feet by never walking barefoot, by checking the bath water for proper temperature by placing a hand or elbow in it before use, and by manually checking the inside of shoes for foreign objects before putting them on.

The pain of neuropathy gradually lessens over many months, and pain medications should be used with caution to avoid narcotic addiction.

TENS (Transcutaneous Electrical Nerve Stimulators) justify a trial if the pain cannot be controlled by lesser means. Multivitamins in megadoses and other preparations have been used but found ineffective unless there is a deficiency of the particular substance administered.

The outlined therapy will be helpful, but total disappearance of the symptoms is not apt to occur. Some degree of acceptance of the problem is necessary.

De WITT E. DeLAWTER MD
Editor ■

Physician Placement Services

The Medical and Chirurgical Faculty of the State of Maryland maintains a Placement Service for the convenience of Maryland physicians, hospitals, and communities in search of candidates for positions available in our state. A detailed description of such opportunities should be forwarded to:

Physician Placement Service
1211 Cathedral St., Baltimore, MD 21201
(301-539-0872)

Physicians wishing to locate in Maryland are invited to submit a resume to be kept on file with the *Physician Placement Service*. Candidates are requested to inform the Faculty when they are no longer available for consideration for opportunities in Maryland.

MMJ announcements on the Classified Advertising page for Physician Placement Service are charged at the regular Classified Advertising rate.



First Lady Barbara Bush presents a FHE Organ Annie to the Children's Hospital Medical Center

Health Education in Montgomery County

Several years ago as our work in the Auxiliary evolved, a group of physician spouses realized that our dream of establishing a health education center here in the metropolitan area was within our reach but only if we narrowed our focus and dedicated ourselves to that single, long term goal. The result of this realization was the establishment of a 501 (c) 3 not-for-profit Foundation for Health Education (FHE).

Members of FHE engaged in health promotion activities throughout the community with various groups who share their belief that education and prevention are the answers to many of the health issues facing our community. We have been working with the Montgomery County Wellness Task Force for Youth, the Safe Kids Coalition, the Rockville Consortium of Science, Business Against Drugs, the American Heart Association, the Gaithersburg Chamber of Commerce, the Montgomery County Health Department, and of course, the Auxiliary to the Montgomery County Medical Society. In addition, we are becoming known for our sponsorship of health fairs for children from upper county Germantown to downtown Rockville.

While working with the Department of Education, the Foundation had the opportunity to present the ever popular Organ Annie to the First Lady, Barbara Bush. She was so taken with our young lady that she donated the "BB" doll to the Children's Hospital National Medical Center for use in its Child Life Department for their work with families. It was exciting to receive the letter of acknowledgment from the White House and the accompanying picture of the actual presentation to Children's Hospital.

Our Foundation is an active example of what can happen when a few people share their enthusiasm with others. We are pleased that the Montgomery County Medical Society has recognized our efforts and made a financial contribution to support this endeavor.

NORMA JEAN ROSBOROUGH
President, Foundation for Health Education

Auxiliary to the Medical and Chirurgical Faculty of Maryland
JOSEFINA D. FIGUEROA, President; *MELISSA LEFFLER*, Editor

THE WHITE HOUSE

November 8, 1989

Dear Ms. Rosborough,

It was so kind of you to allow Organ Annie to visit us at the White House. She certainly is a well put-together young lady and I especially admire her rich inner qualities -- after all, its what's inside that counts.

On a more serious note, I am sure that Organ Annie does a wonderful job of helping young people better understand the miracle of their bodies and the need to take good care of themselves.

Thank you so much for sharing the work of the Foundation for Health Education, Inc.

With all best wishes,

Warmly,

Barbara Bush

quite a doll!

confidential\, kän-fə-ˈden-chəl\ adj(1759) 1: marked by intimacy or willingness to confide. 2: PRIVATE, SECRET.

nondisciplinary\ nän-ˈdis-ə-plə-ner-ē\ adj(1598) 1a: not of or relating to discipline. b: not designed to correct or PUNISH breaches of discipline.

The Medical and Chirurgical Faculty of Maryland Physician Rehabilitation Committee addresses the health problems of Maryland Physicians with a confidential and nondisciplinary focus. Addiction, Marital/Family conflicts, Psychiatric Illness, Organic Impairment, Physical Handicap... If these are some of the problems, we can help you find the solutions.

In Maryland the Physician Rehabilitation Committee of MED-CHI is available to all physicians, and their families.
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In Maryland **1-800-492-1056**
Message line **(301)727-0120** 24 hours a day, 7 days a week, leave a message

Medical and Chirurgical Faculty of Maryland

Physician Rehabilitation Committee

HELPING IS OUR BUSINESS...If you wish to help further the work of the Committee through a tax deductible donation send to: The Medical and Chirurgical Faculty Charitable/Educational Foundation, 1211 Cathedral St. Baltimore, Maryland 21201
Please note on your donation: "Physician Rehab"

Scholarships Awarded to Baltimore Students

The Baltimore City Medical Society Foundation, Inc. awarded $12,000 in scholarships to eight Baltimore City medical school students during its meeting in May. Each student received a $1,500 grant.

The scholarship program is funded by contributions from physician members of the Baltimore City Medical Society and their friends and families. Awards are made annually to medical school students from Baltimore City who have demonstrated academic achievement and financial need. Recipients must be permanent residents of Baltimore City, enrolled in or accepted by an accredited school of medicine or osteopathy in the United States, and must be recommended by a member of the Baltimore City Medical Society.

In announcing the 1990-91 awards, Beryl. J. Rosenstein MD, chairman of the Foundation's Board, said that the Board was very impressed this year with the number of highly qualified and motivated students from Baltimore City who had submitted applications: "Given the quality of students represented here we can look for a very fine group of young physicians to serve the citizens of Baltimore in the future."

The members of the Baltimore City Medical Society established the Foundation in 1972 to support city residents in medical school and to aid philanthropic causes in the community. This year, beyond the $12,000 awarded in scholarships, the Foundation contributed $1,000 to Health Care for the Homeless and $500 to the Baltimore City Foundation, Inc.

Paul David Brettschneider received the Elliott R. Fishel MD Memorial Scholarship. Brettschneider graduated from Johns Hopkins University in 1989 with general honors, receiving a BA in biology. The scholarship will support his second year as a medical student at Johns Hopkins University School of Medicine.

The family of Dr. Fishel funds the Elliott R. Fishel MD Memorial Scholarship each year in his honor. Dr. Fishel, a native of Baltimore, served the community as a general surgeon for 35 years. At the time of his death in 1985, Dr. Fishel was the president of the Baltimore City Medical Society.

Saverio Mirarchi will receive (for the second year in a row) the Nathan E. Needle MD Memorial Scholarship to support his fourth year of medical studies at the University of Maryland School of Medicine. Mirarchi graduated from Johns Hopkins University with general honors in 1987, earning a BA in natural science.

Dr. Needle, who retired from the practice of general medicine in 1978, served as president of the Maryland Heart Association, the Maryland Academy of Physicians and Surgeons, and the Maryland Academy of General Practice, and as the first treasurer of the Baltimore City Medical Society Foundation, Inc. Mrs. Nathan E. Needle funds this scholarship annually in her husband's honor.

Charling Rose Williams will receive the Liberty Medical Center Scholarship. Williams graduated from the University of Delaware in 1981 with a BA in biology. The scholarship will support her second year of medical studies at the Southern Illinois University School of Medicine. Williams is the first recipient of this new scholarship, funded by the medical staff of Liberty Medical Center.

Theodore Arthur Dorsay will receive a scholarship from the foundation in support of his fourth year of medical school at George Washington University Medical Center. Dorsay graduated from Johns Hopkins University in 1979 with a BA in biology.

Suzanne Kim Doud will receive scholarship aid toward her second year of medical studies at Boston University School of Medicine. Doud graduated from Smith College in 1987 with an AB degree. She majored in biochemistry and minored in German. Following her graduation, Doud worked in research at Harvard University's Southborough campus and the Rockefeller University.

Vinay Kamat will receive a scholarship in support of his first year of medical studies. Kamat, who will receive his BA in biological sciences in June 1990 from the University of Maryland Baltimore County, has not yet decided which medical school he will attend.

David Brian Lumsden will receive scholarship aid for his first year of medical studies at Pennsylvania State University College of Medicine. Lumsden graduated with high honors from Towson State University in 1985, earning a BS degree with a major in health and a minor in pre-med. In 1988, he received an MS in anatomy from the University of Maryland at Baltimore, and in 1990, an MA in exercise physiology.

Jeffrey Allen Weaver will receive a scholarship in support of his fourth year of medical studies at Howard University College of Medicine; he also received a Foundation scholarship in 1989. Weaver received a BA with honors in biology from the University of Maryland Baltimore County in 1986. ■

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In the Matter of
Nathan L. Centers MD
Before the
Maryland Board of
Physician Quality Assurance

Order Terminating Probation and Reinstating License

By Order dated September 29, 1987 (the 1987 Order), the Commission on Medical Discipline (the Commission) predecessor agency to the Board of Physician Quality Assurance (the Board) found Nathan L. Centers MD (Respondent) guilty of committing prohibited acts as set forth in Health Occupations Article, *Annotated Code of Maryland* (HO) §14-504. Specifically, the Commission found Respondent professionally, physically, or mentally incompetent; guilty of abusing narcotics or controlled dangerous substances and guilty of providing professional services while under the influence of alcohol or narcotics, §14-504(a)(4)(8)(9). The Commission suspended the medical license of Respondent, immediately staying the suspension, conditioned upon the Respondent complying with the Conditions of Probation. The Order further provided that two (2) years from the effective date of the Order, that being September 29, 1989, if the Respondent demonstrated to the Board's satisfaction that Respondent had complied with the terms and conditions of his probation, the Board would entertain a petition for altering the terms of Respondent's probationary status.

By letter dated January 26, 1990, Respondent petitioned the Board for Termination of Probationary Status and Reinstatement of His License (Petition) to practice medicine in Maryland. At its meeting on March 28, 1990, the Board reviewed Respondent's petition. Based on the Board's review of the Petition, the Board determined that Respondent had fulfilled the Conditions of Probation contained in the 1987 Order.

Findings of Fact

Based on the information known and available to it, the Board finds that:

1. Respondent received group therapy following his discharge in March 1987 from Sheppard Pratt Hospital (the hospital) until September 1988 when the hospital's aftercare program was discontinued. A report dated November 28, 1988 indicated Respondent was involved in individual psychotherapy twice a week with Dr. Jeffrey Klein covering the last two (2) six (6) month periods. Respondent's therapist certified that Respondent attended Narcotics Anonymous and Alcohol Anonymous meetings.

2. While living at Keswick House, a half-way house, from March 26, 1987 until August 1988, supervised, random weekly urinalyses were performed by Friends Medical Laboratories. All test results were negative. After discharge from Keswick House, Respondent signed a five-year contract with the Committee on Physician Rehabilitation of the Medical and Chirurgical Faculty of Maryland, which has obtained urinalyses on a weekly basis and has provided monthly reports to the Board. Respondent has remained in the Physician Rehabilitation program.

3. Michael G. Hayes MD, Medical Director of Man Alive, confirmed in writing on December 5, 1988 that Respondent has been working at Man Alive and listed his job responsibilities. Permission was granted by the Commission on February 16, 1988 to allow Respondent to work on a part-time basis, ten (10) hours a week for Dr. Richard Schlottman. This employment terminated on April 14, 1988 due to the cost of malpractice insurance coverage. On December 14, 1988, the Board approved employment for Respondent in the Chemical Dependency Unit at the Greater Baltimore Medical Center. In that capacity Respondent worked under the direct supervision of Dr. John Steinberg, Director.

4. Respondent limited his prescribing to writing prescriptions for noncontrolled substances and documented orders for controlled substances in the patient's charts.

5. No complaints were filed that indicate Respondent has violated any provisions of the Act.

6. There is no evidence that Respondent has not practiced fully in accordance with the standards expected of a competent practitioner of medicine in the State of Maryland.

Conclusions of Law

The Board concludes, as a matter of law, that Respondent has satisfactorily complied with all conditions of probation as set forth in the Order of September 29, 1987.

Order

Upon the foregoing Findings of Fact and Conclusions of Law, it is this 21st day of May 1990 by a majority vote of the full authorized membership of the Board.

ORDERED that effective as of the date of this Order, the Conditions of Probation imposed on Respondent's practice of medicine by the Board's 1987 Order are hereby TERMINATED and of no further force and effect; and be it further

ORDERED that Respondent's license to practice medicine in the State of Maryland be REINSTATED without any condition or restriction whatsoever; and be it further

ORDERED that this is a Final Order.

ISRAEL H. WEINER MD, Chairman
Board of Physician Quality Assurance

In the Matter of
James M. Hitzrot MD
Before the
Maryland Board of
Physician Quality Assurance

Consent Order

On September 27, 1989 the State Board of Physician Quality Assurance (the Board) voted to charge James M. Hitzrot MD (the Respondent) under MD Health Occ. Code Ann. §14-504(a)(6) and (24) (1989 Cum. Supp.). Accordingly, on April 23, 1990, the Board issued charges under the Maryland Medical Practice Act.

The pertinent provision of §14-504 provide:

> (a) Subject to the hearing provisions of §14-505 of this subtitle, the Board, on the affirmative vote of a majority of its full membership, may reprimand any license, place any licensee on probation, or suspend or revoke a license if the licensee:
> (6) abandons a patient;
> (24) Willfully submits false statements to collect fees for which services are not provided.

On June 6, 1990 a settlement conference was held.

As a result of negotiations entered into during the settlement conference, Respondent agreed to the following Consent Order.

Findings of Fact

1. At all times relevant to these charges, Respondent was and is licensed to practice medicine in the State of Maryland.

2. On March 11, 1986, Patient A, an 83-year-old female, sought medical care at the O'Donnell Square Medical Center where she was diagnosed as having a fractured femur and referred to Respondent, an orthopedic surgeon.

3. At the O'Donnell Square Medical Center, Patient A's daughter, B, spoke with Respondent via the telephone. Respondent said that he would care for Patient A at Church Hospital. B said that Patient A would prefer to be admitted to St. Joseph's Hospital. Since Respondent had admitting privileges at St. Joseph's, Respondent said that he would call St. Joseph's and arrange for her admission.

4. B drove Patient A to St. Joseph's where Patient A was admitted on March 11, 1986, at 1:38 p.m. to Respondent's service.

5. Respondent did not see and did not examine Patient A at St. Joseph's.

6. On March 14, 1986, at 12:30 p.m., Patient A was transferred to Dr. X's service after Patient A's family complained that Respondent had not seen Patient A. Dr. X examined the patient and diagnosed an intra and supracondylar fracture of the left femur.

7. On March 16, 1986, after a medical evaluation, Dr. X performed an open reduction and internal fixation of the patient's left femur.

8. Although Respondent made arrangements by telephone for Patient A to be admitted to St. Joseph's Hospital, Respondent failed to see the patient within 24 hours of admission. Respondent failed to request a consult by an internist for the patient. Respondent failed to provide a definitive treatment plan.

9. The standard of care requires that the admitting physician see a patient within 24 hours of admission. The standard of care requires that a physician *personally* render care.

Conclusions of Law

Based on the Findings of Fact, the Board concludes, as a matter of law, that Respondent violated MD Health Occ. Code Ann. §14-504(a)(6) (1989 Cum. Supp.) and finds Respondent guilty of abandoning a patient.

The Board finds that there are no grounds to support a violation of MD Health Occ. Code Ann. §14-504(a)(24) and hereby dismisses the charge.

Order

Based on the foregoing Findings of Fact, it is this 29th day of June 1990, by an affirmative vote of the majority of the full authorized membership of those members of the Board of Physician Quality Assurance of Maryland who considered this case,

ORDERED that Respondent is REPRIMANDED; and be it further

ORDERED that this is a final order.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

Consent

By this Consent, I hereby submit to the entry of the above Findings of Fact and Conclusions of Law and agree to accept the foregoing Consent Order.

1. I acknowledge the Board's jurisdiction and the validity of this Order as if made after a hearing in which I would have had the benefit of counsel, the right to confront witnesses, to give testimony, to call witnesses on my own behalf, and to all other substantive and procedural protections provided by law. I also recognize that I am waiving my right to appeal any adverse ruling of the Board that might have followed any such hearing. By this Consent, I waive all such rights.

2. I am represented by Eugene L. Miles, Esquire, and Donald M. Barrick, Esquire, and I have consulted with them before signing this Order. I sign this Order voluntarily, fully understanding its meaning.

JAMES M. HITZROT MD

In the Matter of
Leonard L. Kogan MD
Before the
Maryland Board of
Physician Quality Assurance

Consent Order

On February 5, 1988 the Commission on Medical Discipline[1] (the Commission), charged Leonard L. Kogan MD (the Respondent) with a violation of Md. Health Occ. Code Ann. § §14-504(4) and (23) (1986). *See* Charge Letter, attached as Exhibit A and incorporated herein.

Specifically, pursuant to Md. Health Occ. Code Ann. §14-504 (1986) the Commission charges that Respondent:

> (4) Is professionally, physically, or mentally incompetent; and
> (23) Fails to meet appropriate standards as determined by appropriate peer review for the delivery of quality surgical care performed in an outpatient surgical facility, office, hospital, or any other location in this State.

On January 25, 1989 a settlement conference was held. As a result of negotiations entered into during the settlement conference, Respondent agreed to enter into a Disposition Agreement and simultaneously executed a Consent Order.

On June 28, 1989 a second settlement conference was held. As a result of further negotiations entered into during the settlement conference, Respondent agreed to enter into a Disposition Agreement, which is attached as Exhibit B hereto and incorporated herein, and simultaneously execute this Consent Order.

Findings of Fact

1. At all times relevant to this Order, Respondent was and is currently licensed to practice medicine in Maryland.
2. Respondent is an ophthalmologist practicing at Holy Cross Hospital and Suburban Hospital.
3. Ten randomly selected records from Holy Cross Hospital and ten randomly selected patient charts from Suburban Hospital were reviewed by members of the Peer Review Committee of the Medical and Chirurgical Faculty and reviewers selected by the Commission.
4. The peer reviewers found that Respondent's hospital records were incomplete and deficient in the following respects:
   (a) All ten of the Holy Cross Hospital charts examined contain an operative note with *identical words*, phrases, and descriptions about the cataract surgery performed. The operative notes do not indicate which eye received surgery.
   (b) In one Holy Cross Hospital chart, the operative note indicates that only local anesthesia was given. The anesthesia note indicates that general anesthesia was given. In fact, both local and general anesthesia were given.
   (c) Five Suburban Hospital charts do not contain an operative note although Respondent performed surgery in all five instances in which a chart exists.
   (d) In two Suburban Hospital charts, the "standard" operative note, as described in paragraph (a) above, indicates an intraocular solution was used that is contraindicated for the surgery performed. Respondent used an appropriate intraocular solution but dictated the operative note incorrectly.
   (e) Respondent performed surgery for a patient with glaucoma at Suburban Hospital. Respondent performed an iridectomy as part of the glaucoma surgery but failed to indicate this in the operative note.
   (f) In three hospital charts, Respondent did not record the preoperative visual acuity.
   (g) In one hospital chart, there was no evaluation of the laboratory findings of preoperative glycosuria, elevated blood sugar, and ischemic EKG changes. There was no designation of which eye had the cataract, and on the surgery notes there is no evaluation of the funduscopic examination performed preoperatively.
   (h) In one hospital chart, Respondent did not cosign the history and physical examination.
   (i) In one hospital chart, Respondent did not sign the progress notes.
   (j) In one hospital chart, there was no preoperative evaluation of the finding that the patient was insulin dependent, with a blood sugar of 263, and had not seen a physician for this condition in two (2) years. On discharge, there was no referral to another physician for the patient's medical conditions excluding his eye surgery. Respondent made a referral upon discharge but did not document the referral.
   (k) In one hospital chart, there was no preoperative evaluation of the patient's glaucoma (that is, visual fields and appearance of the optic nerve), no indication of the method of surgical management of the glaucoma, and no mention of the diagnosis of glaucoma on the face sheet.
   (l) In one hospital chart, although the patient had glaucoma, there was no mention of the medical or surgical management of the glaucoma.
   (m) In one hospital chart, there was no explanation why cataract surgery previously performed in one eye had a poor visual result.
   (n) Respondent performed surgery for a complication from a prior cataract surgery. The

1. The 1988 General Assembly, by Senate Bill No. 508 and House Bill No. 855, merged the functions of the former Commission on Medical Discipline and the former Board of Medical Examiners into the State Board of Physician Quality Assurance.

patient was blind in the eye that was not operated on but there is no indication in the hospital chart of what caused the blindness.

5. Respondent and the Board entered into a Disposition Agreement, Exhibit B. The Disposition Agreement provided that if Respondent violated one of conditions of the Disposition Agreement, the Board would immediately execute this Consent Order, which incorporates the Disposition Agreement.

6. Respondent admits that he kept inadequate medical records as specified in paragraph four (4) above.

Conclusions of Law

Based on the forgoing Findings of Fact, the State Board of Physician Quality Assurance[2] (the Board) concludes that Respondent violated Md. Health Occ. Code Ann. §14-504(23) (1986). Respondent failed to meet the appropriate standards as determined by appropriate peer review for the delivery of quality surgical care performed in a hospital in this State because Respondent failed to maintain complete and accurate medical records.

The Board finds that there are no grounds to support a violation of Md. Health Occ. Code Ann. §14-504(4) (1986) and hereby DISMISSES the charges pursuant to Md. Health Occ. Code Ann. §14-506(b) (1988 Cum. Supp.).

Order

Based on the foregoing Findings of Fact and Conclusions of Law, it is hereby ORDERED this 20th day of June 1990, by the Board, that Respondent is REPRIMANDED, and it is further

ORDERED that the Board may place Respondent on Probation with any conditions the Board deems appropriate.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

Consent

By this Consent, I hereby admit to the Findings of Fact contained in this Order. I hereby agree to be bound by the foregoing Consent Order and its conditions and restrictions.

I am entering into this Consent Order for the purpose of resolving the charges initiated by the Commission on Medical Discipline and the Board of Physician Quality Assurance against my license to practice medicine as defined in the Charge Letter dated February 5, 1988 attached as Exhibit A.

I acknowledge the validity of this Order and the legal authority of the Board of Physician Quality Assurance to issue and enforce this Order.

I understand that if I fail to abide by the conditions of the Order, I may suffer disciplinary action against my license to practice medicine in the State of Maryland.

LEONARD L. KOGAN MD

EXHIBIT A

February 5, 1988

HAND DELIVERED

Leonard L. Kogan MD
8630 Fenton Street
Silver Spring, MD 20910

Re: Commission of Prohibited Act
under the Maryland Medical Practice Act

Dear Dr. Kogan:

By the enclosed "Charges Under the Maryland Medical Practice Act" (the Charge), the Commission on Medical Discipline (the Commission) charges under the Maryland Medical Practice Act (the Act), Title 14 of the Health Occupations Article, *Annotated Code of Maryland*. If the Commission finds you guilty of the charges, the Commission may reprimand you, place you on probation, suspend or revoke your license.

Under §14-505 of the Act, you are entitled to an evidentiary hearing on the charges. The Commission has scheduled the hearing for Tuesday, March 29, 1988 at 1 p.m. in L-3 of the O'Conor Building, 201 West Preston St., Baltimore, MD 21201. The administrative prosecutor who will present the case against you is Barbara Hull Foster, Assistant Attorney General. Please be advised that if you do not appear at the hearing, the Commission has the authority to hear and determine the matter despite your absence.

In addition to the hearing, the Commission has scheduled a prehearing conference for Tuesday, February 23, 1988 at 11:30 a.m. at the office of Dr. Reynaldo Lee-Llacer, 8909 Old Branch Ave., Clinton, MD 20735, a representative from the Commission. The purpose of the prehearing conference is to prepare for the hearing. Accordingly, please be prepared to discuss hearing dates, witness lists, and general hearing procedure at the prehearing conference.

The administrative prosecutor may be contacted regarding the settlement of this matter. If a settlement is reached with the administrative prosecutor, that settlement should be presented to the representative from the Commission at the prehearing conference. If the Commission member thinks that the agreement reached between you and the prosecutor will be approved by the Commission, the representative may choose to present the agreement to the Commission. The Commission may accept or reject the settlement. If the Commission rejects the settlement, the parties will then proceed to a hearing.

In the event of a hearing, the proceedings before the Commission will be conducted in accordance with the Administrative Procedure Act, §10-201 *et seq.* of the State Government Article, *Annotated Code of Maryland* and regulations adopted by the Commission, COMAR 10.31.01. The Administrative Procedure Act gives you the right to be represented by counsel, call witnesses, present evidence, cross-examine any witness, and present argument and summation.

Because any decision made by the Commission could affect your license to practice medicine in the State of Maryland, you are strongly urged to retain and be represented by an attorney at the prehearing conference and at all other stages before the Commission. To appear on your behalf at the prehearing conference or hearing before the Commission, your attorney should be admitted to the Bar in Maryland or specially admitted under Maryland Rule 20.

If you or your attorney have any questions about the charges, please contact Ms. Foster at the Office of the Attorney General, 300

2. The Board is the successor agency of the Commission on Medical Discipline.

West Preston St., Suite 302, Baltimore, MD 21201 (301-225-1846/1859).

Very truly yours,

RONALD J. TAYLOR MD, Vice Chairman
Commission on Medical Discipline

In the Matter of Leonard L. Kogan MD Before the Commission on Medical Discipline

Charges Under the Medical Practice Act

Based on information received by the Commission on Medical Discipline (the Commission) and a subsequent investigation by the Medical and Chirurgical Faculty of Maryland (Med Chi), the Commission hereby charges LEONARD L. KOGAN MD (Respondent) under §14-504(4) and (23) of the Medical Practice Act (the Act), Title 14, Health Occupations Article, *Annotated Code of Maryland*. Section 14-504 of the Act permits the Commission to impose sanctions on a licensee who:

> Is professionally, physically, or mentally incompetent; [§14-504(4) of the Act]
>
> Fails to meet appropriate standards as determined by appropriate peer review for the delivery of quality ... surgical care performed in an outpatient surgical facility, office, hospital, or any other location in this State; [§14-504(23) of the Act]

Allegations of Fact

The bases of the charges are as follows:

1. At all times relevant to these charges, the Respondent was and is licensed to practice medicine in Maryland.
2. Respondent is a practicing ophthalmologist who practices at Suburban Hospital and Holy Cross Hospital.
3. Random hospital and office records of patients treated by Respondent were reviewed by the Medical and Chirurgical Faculty Peer Review and reviewers selected by the Commission.
4. The reviewers found that:
   a. Respondent's medical records and hospital records were deficient in several aspects including but not limited to:
      1) For patients A, B, C, D, E, and F there were no operative notes;
      2) There were errors in the patients' hospital records for G, H, I, and F:

         With patients G and H the operative notes contained an error as to the intraocular solution used insofar as the intraocular solution used was contraindicated for the surgery performed.

         With patient I, the standard note indicates a local anesthetic was used while the anesthesia note indicates a general anesthetic was used.

         With F, her health was noted as "good" and she was stated to be on no prescriptions although she had an upper respiratory infection and was on tetracycline.

      3) The following patient hospital records were not individually prepared but were made on standardized forms which did not vary from patient to patient: G, H, I, J, K, L, M, N, O, P, Q, and R.

         In general, the records from Holy Cross Hospital were on standardized forms and there were no operative notes indicating which eye received surgery.

      4) The patient records were incomplete:

         On the hospital records of C, B, Q, there was no preoperative visual acuity recorded.

         With patient A, there was no evaluation of the laboratory findings of preoperative glycosuria, elevated blood sugar, and ischemic EKG changes. There was no designation of which eye has the cataract, and on the surgery notes there is no evaluation of the funduscopic examination performed preoperatively.

         With patient B, Respondent did not cosign the history and physical examinations, and with F, Respondent did not sign the progress notes.

         With patient E there was no preoperative evaluation of the findings that he was insulin dependent, with a blood sugar of 263, and had not seen a physician for this condition in two (2) years. On discharge, there was no referral to another physician for the patient's medical conditions excluding his eye surgery.

         With patient H, there is no preoperative evaluation of his glaucoma, no indication of the method of surgical management of the glaucoma, and no diagnosis on the face sheet of the glaucoma.

         There is no mention of patient R's glaucoma in the hospital notes.

         With patient S there was no mention of the performance of an iridectomy at surgery, which is a usual part of surgery performed.

         With patient L, there is no explanation as to why cataract surgery in one eye previously performed had a poor visual result.

         With patient O, there is no indication why the patient is blind in the opposite eye from the one on which the operation was scheduled.

         Although patient R was admitted postoperatively for nausea, vomiting, and increased blood pressure, the nurses' notes after admission do not indicate that there were these symptoms.

         With patients T, J, K, Q, and G there was no indication of which eye is involved for cataract surgery.

      5) Respondent fails to record on the hospital records the proper evaluations prior to surgery, such as funduscopic examinations and visual acuity.

   b. Respondent's medical practice is deficient insofar as:
      1) Respondent failed to evaluate or request consultation of medical findings when the

following patients' medical condition required such evaluation or consultation.

With patient A there was neither a medical evaluation of the laboratory findings of preoperative glycosuria, elevated blood sugar, occult blood in the urine, elevated sedimentation rate, and ischemic EKG changes or a request for a consultant to examine the patient. This patient's hypertension, diabetes, and cardiovascular disease was not reviewed and surgical risks were not medically evaluated prior to surgery.

With patient E there was neither a medical evaluation performed nor consultation requested in spite of the findings that the patient was insulin dependent, had a blood sugar of 263, and had not seen a physician for an examination in two (2) years. Respondent did not refer the patient to an attending physician upon discharge.

With patient F there was neither a medical evaluation performed nor consultation requested in spite of an abnormal chest film, an abnormal EKG and upper respiratory infection. Although Respondent was notified of the results of an abnormal EKG and chest x-ray there is no indication why he proceeded with an elective surgery.

There was neither a medical evaluation nor a consultation regarding patient O's hypertension prior to surgery.

There was neither a medical consultation nor an evaluation of patient S's surgical risk prior to surgery, considering the patient's heart disease and diabetes. There is no note of the increased fasting blood sugar present on the evaluation preoperatively for the attending's consideration. Although a standard x-ray was taken and a standard EKG done there was no evaluation of same.

2) Respondent performed unnecessary surgery:

There was no justification for the glaucoma surgery performed on S. There was no justification for performing two (2) separation operations on S when the procedures could have been performed simultaneously.

Respondent operated on patient L's left eye when he should have known there would be no improved vision. Respondent advised against cataract surgery for patient L. Upon patient L's request for the surgery, Respondent performed same when there were no facts indicating that he should change his opinion to operate on the right eye. A subsequent YAG laser treatment was unnecessary.

Laser surgery for patient R's right eye was not indicated.

3) Respondent failed to request a smear and culture on exudate when performing surgery as a result of complications from preceding cataract surgery, patient O.
4) Respondent failed to give instructions to patient R concerning the use of existing medications.

c. Respondent's medical knowledge is deficient:
1) Respondent did not properly surgically manage the following patients who had glaucoma.

With patient H there was no indication that the glaucoma was managed after surgery with Timoptic or its equivalent.

R had glaucoma. There is no indication of surgical or medical management of the glaucoma after Respondent performed cataract surgery on her left eye either by using Timoptic or its equivalent.

Patient M had glaucoma. There is no indication that Respondent surgically treated the glaucoma with Pilocarpine after surgery or discharged her with any prescription.

Respondent performed laser surgery on patient R when the single visual field test did not indicate progressive visual field loss or lack of medical control of the glaucoma.

Respondent operated too prematurely on the second half of the left eye with laser surgery for glaucoma, patient R.

The glaucoma surgery on patient S was not justified.

2) The use of 10 percent phenylephrine eyedrops preoperative is inappropriate in a hypertension patient, patient R.
3) Although patient M was asthmatic and thus Timoptin (a beta blocker) was contra-indicated, Respondent continued to prescribe same.
4) Respondent stated that the use of myotics after cataract surgery would cause uveitis with Patient S, which is erroneous.

Notice of Possible Sanctions

If, after a hearing, the Commission finds the above allegations of facts to be true, the Commission may impose disciplinary sanctions against Respondent's license, including revocation, suspension, or reprimand, and may place the Respondent on probation.

Notice of Hearing and Prehearing Conference

A hearing in this matter has been scheduled for Tuesday, March 29, 1988, at 1 p.m., in L-3 of the O'Conor Building, 201 West Preston St., Baltimore, MD 21201.

In addition, a prehearing conference in this matter has been scheduled for Tuesday, February 23, 1988 at 11:30 a.m. at the office of Dr. Reynaldo Lee-Llacer, 8909 Old Branch Ave., Clinton, MD 20735. The nature and purpose of the prehearing conference is described in the attached letter to Respondent.

RONALD J. TAYLOR MD, Vice Chair
Commission on Medical Discipline

In the Matter of
Leonard L. Kogan MD
Before the
Commission on Medical Discipline

Summons and Notice of Charges and Hearing

You are hereby summoned to appear at a hearing before the Maryland Commission on Medical Discipline (the Commission) to determine whether you

have committed the prohibited acts described in the attached document entitled "Charges under the Maryland Medical Practice Act" and what sanctions, if any, are appropriate. The hearing is scheduled for Tuesday, March 29, 1988 at 1 p.m., in Room L-3 of the O'Conor Building, 201 West Preston St., Baltimore, MD 21201.

This hearing is held under the authority of §14-504 of the Health Occupations Article, §10-205 *et seq.* of the State Government Article, and COMAR 10.31.01.

If you do not appear as required by this summons, the Commission may hear and determine this matter in your absence, as provided under §14-505 of the Health Occupations Article.

RONALD J. TAYLOR MD, Vice Chair
Commission on Medical Discipline

EXHIBIT B

In the Matter of
Leonard L. Kogan MD
Before the
Maryland Board of
Physician Quality Assurance

Disposition Agreement

THIS DISPOSITION AGREEMENT (the Agreement) is made this 11th day of September 1989 by and between the State Board of Physician Quality Assurance[1] (the Board) and Leonard L. Kogan MD (the Respondent).

Whereas, a complaint was filed with the Commission on Medical Discipline (the Commission) against the Respondent; and

Whereas on February 5, 1988, the Commission charged Respondent with a violation of Md. Health Occ. Code Ann. § §14-504(4) and (23) (1986). (*See* Charge Letter, attached as Exhibit A and incorporated herein.)

Specifically, pursuant to Md. Health Occ. Code Ann. §14-504 (1986) the Commission charged that Respondent:

(4) Is professionally, physically, or mentally incompetent; and
(23) Fails to meet appropriate standards as determined by appropriate peer review for the delivery of quality surgical care performed in an outpatient surgical facility, office, hospital, or any other location in this State.

Whereas, on January 25, 1989 a settlement conference was held with Respondent, Counsel for Respondent, Assistant Attorney General and Administrative Prosecutor, a member of the Board, and Assistant Attorney General and Counsel to the Board. As a result of negotiations entered into during the settlement conference, Respondent agreed to a Disposition Agreement; and

Whereas, on June 28, 1989, another settlement conference was held with Respondent, Counsel for Respondent, Assistant Attorney General and Administrative Prosecutor, members of the Board, and Settlement Officer. As a result of negotiations entered into during the settlement conference, Respondent agreed to the following Disposition Agreement; and

Whereas, the Board and Respondent mutually desire to resolve this disciplinary action without holding a formal hearing or imposing a sanction on Respondent that would become part of his permanent licensure record with the Board; and

Whereas, Respondent expressed his willingness to undertake certain obligations in exchange for the Board's agreement to dismiss the charges enumerated in the Charge Letter (Exhibit A).;

Now, therefore, in consideration of the mutual agreements of the parties hereto, as hereinafter set forth, the Board and Respondent agree as follows:

1. Respondent shall execute the attached Consent Order simultaneously with the execution of this Agreement; and be it further agreed

2. The Board shall defer executing the attached Consent Order; provided, however, that the Board may execute the Consent Order, WITHOUT PRIOR NOTICE BUT PRESERVING RESPONDENT'S RIGHT TO A HEARING, upon the occurrence of Respondent's failure to comply with any of the following conditions during a period of one (1) year beginning on August 16, 1989:

a. Within 90 days from August 16, 1989, Respondent shall attend a course designed by the University of Maryland School of Medicine, Department of Ophthalmology in the use of appropriate medical records in the practice of ophthalmology. Two specific areas to be covered in the course are:
   (i) A general overview of medical record requirements using a system like the problem-oriented medical record system; and
   (ii) A follow-up course of how to use such a system in Respondent's specific discipline of ophthalmology.

Respondent shall pay the cost of the course.

b. Respondent shall improve his office and hospital records by using traditional abbreviations and limiting his own personal abbreviations.
c. Respondent shall record which eye is being examined and which eye has been operated on in both office and hospital records.
d. Respondent shall submit to a review of thirty (30) medical records every three (3) months for a period of one (1) year. The record reviews shall occur on or about October 1, 1989, January 1, 1990, April 1, 1990, and July 1, 1990. To avoid any issue of bias, the Board will suggest that the peer review be conducted by a medical society other than the one in the county in which Respondent practices. The Board has complete discretion to select a peer review committee to review the records and prepare a report to the Board. The Board or the peer review committee has complete discretion to select which office and hospital records it chooses to review, and Respondent shall bear any administrative costs associated with the peer review.
e. The purpose of the record review described in section (d) above is to determine whether Respondent's records are reflective of the standard of care within the community in which he practices.
f. Respondent shall practice medicine and surgery in accordance with the Maryland Medical Practice Act, Md. Health Occ. Code Ann. §14-101 *et seq.* (1988 Cum. Supp.); and be it further agreed

3. One year from the effective date of this Agreement the Board shall entertain a petition from Respondent demonstrating that he has fulfilled the terms of this Agreement; and be it further agreed

4. That, if Respondent has complied with all of the terms of this Agreement, and the Board has no probable cause to believe the Respondent cannot practice safely, without danger to the health, safety, and welfare, Board shall dismiss all of the charges set forth in the attached charge letter, Exhibit A and all records relating to those charges shall be expunged, including the attached Consent Order; however, nothing in this Agreement shall be construed to require the expungement of this Agreement that shall remain in Respondent's permanent licensure record as a professional licensing record not subject to public disclosure under the Maryland Public Information Act, Md. State Gov't. Code Ann. § §10-611 - 629 (1988 Cum. Supp.) because it is not an Order of Finding that resulted from

1. The 1988 General Assembly, by Senate Bill No. 508 and House Bill No. 855, merged the functions of the former Commission on Medical Discipline and the former Board of Medical Examiners into the State Board of Physician Quality Assurance.

a formal disciplinary action. If in the future, the Board charges Respondent with a violation of the Maryland Medical Practice Act, this Agreement CANNOT BE used or considered as evidence against Respondent. However, if the charge results in a finding of a violation of the Maryland Medical Practice Act, then this Agreement CAN BE used in considering what penalty, that is, probation, reprimand, suspension, revocation, may be appropriate; and be it further agreed

5. That, if the Board finds probable cause to believe that Respondent violated the Maryland Medical Practice Act or has violated a condition of this order, the Board may execute the attached Consent Order, WITHOUT PRIOR NOTICE BUT PRESERVING RESPONDENT'S RIGHT FOR AN OPPORTUNITY TO BE HEARD, provided that Respondent is notified, and within thirty (30) days of requesting a hearing, Respondent receives a hearing on the charges of Violation of this Order.

WITNESS THE HANDS AND SEALS of the parties hereto, the State Board of Physician Quality Assurance by its Chairman, Israel H. Weiner MD and Respondent, Leonard L. Kogan MD.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

I, Leonard L. Kogan MD, have read this Disposition Agreement and have carefully reviewed each and every part with my attorney. I understand it and voluntarily agree to it.

LEONARD L. KOGAN MD

■ ■ ■

In the Matter of
Ernesto Rivera MD
Before the
Maryland Board of
Physician Quality Assurance

Order Terminating Probation and Reinstating License

By Order (attached hereto) dated June 21, 1988 (the 1988 Order), the Commission on Medical Discipline, predecessor agency to the Board of Physician Quality Assurance (the Board) found Ernesto Rivera MD (the Respondent) guilty of committing a prohibitive act as set forth in Health Occupations Article, *Annotated Code of Maryland* (HO) §14-504. Specifically, the Board found Respondent guilty of immoral conduct in the practice of medicine. The Board reprimanded the Respondent and placed Respondent on probation for two years subject to conditions. The Order further provided that two (2) years from the effective date of the Order, if the Respondent demonstrated to the Board's satisfaction that Respondent had complied with the terms and conditions of his probation, the Board would entertain a petition for termination of Respondent's probationary status and reinstatement of his medical license. By letter dated April 1990, and received by the Board on April 19, 1990, the Board reviewed Respondent's petition for reinstatement of his license to practice medicine in Maryland. At its meeting on June 27, 1990, the Board determined that Respondent had fulfilled the Conditions of Probation contained in the 1988 Order.

Findings of Fact

Based on the information known and available to it, the Board finds that:

1. Respondent identified the facility, Mercy Hospital, in which he practiced medicine.
2. Respondent notified all supervisors, employers, and contractors for whom he provides medical services of the probationary status of his license.
3. Respondent submitted proof, a letter dated November 1, 1988 from James P. Durkan MD, Chairman, Department of OB-GYN, Mercy Hospital, that the Respondent had informed the director of any facility in which he provides medical services of the probationary status of his license, and that Respondent has given the director of any facility in which he provides medical services a copy of this Order.
4. Respondent submitted proof, verification by his employee dated July 1, 1988, that Respondent has informed any employee in his private office of the probationary status of his license, and that the employee was given a copy of this Order.
5. Respondent arranged for the director of any facility in which he provided medical services to submit quarterly reports, attesting to the fact that Respondent had an attendant in the examining room whenever Respondent performed a physical examination. Reports have been received from Beverly J. Stump MD at the Harford County Health Department and James P. Durkan MD at Mercy Hospital.
6. Respondent arranged for his attendant to submit monthly reports in which the attendant stated for each day Respondent had office hours, how many patients were seen, how many required a physical examination, and who was with Respondent when he conducted a physical examination. Reports have been received since July 1988.
7. Respondent acknowledged in a letter dated November 16, 1988 that Henry T. Harbin MD, therapist, was informed of all terms and conditions of the Order.
8. Respondent arranged for therapist to submit written quarterly reports to the Board commencing a month from the date of the Order, indicating that Respondent is making satisfactory progress in dealing with the problems that led to the incident of April 12, 1987. The quarterly reports have been received.
9. By letter dated October 14, 1988, Respondent hired a new employee (Office Assistant). The letter indicated that the new employee read the Order and has a copy of same. She agreed to chaperon for all required examinations with monthly reports submitted, and has so complied.
10. Respondent requested approval, request dated May 1, 1989, of community service through the general gynecology clinic of the Harford County Health Department. The request was approved by the Board

on June 14, 1989 with notification to Respondent on June 20, 1989.

11. There is no reason to believe that Respondent is not practicing medicine in accordance with the laws governing the practice of Medicine in Maryland.

Conclusions of Law

The Board concludes, as a matter of law, that Respondent has satisfactorily complied with all conditions as set forth in the Order of June 21, 1988.

Order

Upon the foregoing Findings of Fact and Conclusions of Law, it is this 27th day of June 1990 by a majority vote of the full authorized membership of the Board

ORDERED that effective as of the date of this Order, the Conditions of Probation imposed upon Respondent's practice of medicine by the Board's 1988 Order are hereby TERMINATED and of no further force and effect; and be it further

ORDERED that Respondent's license to practice medicine in the state of Maryland be REINSTATED without any condition or restriction whatsoever; and be it further

ORDERED that this is a Final Order.

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

In The Matter of Ernesto Rivera MD Before the Commission on Medical Discipline

Findings of Fact, Conclusions of Law, and Order

Certain information having come to the attention of the Commission on Medical Discipline of Maryland (the Commission), the Commission, pursuant to Health Occupations Article, §14-501 requested that the Peer Review Committee of the Medical and Chirurgical Faculty of Maryland (Med Chi) review the complaint received against Ernesto Rivera MD (the Respondent). Following a review and report by Med Chi, the Commission determined to charge Respondent with a violation of §14-504(3) of the Act.

Notice of the charge and the allegations supporting the charge was given to Respondent on March 29, 1988 and a prehearing conference was held May 19, 1988. The prehearing conference was attended by Respondent, Respondent's counsel, Respondent's psychiatrist, the administrative prosecutor, Assistant Attorney General, and a representative for the Commission. As a result of the prehearing conference, Respondent agreed to enter into the following consent order.

Findings of Fact

1. At all times relevant hereto, Respondent was and is a physician licensed to practice medicine in the State of Maryland.

2. At all times relevant to the charges, Respondent was practicing as a specialist in obstetrics and gynecology.

3. On or about April 12, 1987, during the course of an ultrasound treatment of a patient, Respondent touched the genital area of the patient without medical justification.

4. Respondent voluntarily entered therapy immediately after the incident.

5. At the time of the incident, Respondent's judgment was affected by substantial emotional stress, which subsequently has been alleviated and controlled through counseling with a Board certified and qualified psychiatrist.

6. Respondent has continued in counseling since the incident and is working out the problems that led to the emotional stress.

7. The Commission only knows of one incident in which Respondent touched a patient sexually without medical justification.

8. Prior to the incident, no complaints had ever been filed against Respondent.

9. The incident in question was unpremeditated, transitory, and impulsive.

10. Respondent graduated from the University of Maryland School of Medicine in 1966, interned in Puerto Rico on a rotating internship, and served in the United States Army during the Vietnam war. Respondent has been an instructor and assistant professor at the medical school in Puerto Rico. Respondent was held the rank of associated professor of OB/GYN at the University of Maryland School of Medicine. Respondent served as Assistant Chief of Obstetrics and Gynecology at Mercy Hospital. Respondent was Board certified in obstetrics and gynecology in 1972 and recertified in these specialties in 1980. He has been involved in the hospital practice of obstetrics and gynecology and in private practice.

11. Respondent admits the inappropriateness of his touching the patient's genital area on April 12, 1987.

12. There is no evidence that Respondent lacks the appropriate skills and competence to safely practice gynecology and obstetrics.

Conclusion of Law

Based on the foregoing Findings of Fact, the Commission concludes a matter of law:

That Respondent committed a prohibited act under the Medical Practice Act, specifically:

"Is guilty of immoral conduct in the practice of medicine." §14-504(3) of the Health Occupations Article, Annotated Code of Maryland

Order

Upon the foregoing Findings of Fact and Conclusion of Law, it is this 21st day of June 1988, by a unanimous vote of those members of the Commission on Medical Discipline of Maryland who considered this case,

ORDERED that Respondent is REPRIMANDED and placed on probation for TWO YEARS subject to the following conditions:

1. Within ten (10) days from the effective date of this Order, that being the date the Commission executes the Order, Respondent shall identify all the facilities in which he practices medicine.

2. Within ten (10) days from the effective date of this Order, Respondent shall notify all supervisors, employers, contractors for whom he provides medical services of the probationary status of Respondent's license.

3. Within two (2) weeks from the effective date of this Order, Respondent shall submit proof acceptable to the Commission that he has informed the director of any facility in which he provides medical service of the probationary status of his license, and that Respondent has given the director of any facility in which he provides medical service a copy of this Order.

4. Within ten (10) days from the effective date of this Order, Respondent shall submit proof acceptable to the Commission that he has informed any employee in his private office of the probationary status of his license, and given that employee a copy of this Order.

5. Respondent must have an attendant in the examining room whenever he performs a physical examination.

6. Respondent shall arrange for the Director of any facility in which he provides medical services to submit quarterly reports, attesting to the fact that Respondent has an attendant in the examining room whenever he performs a physical examination.

7. Respondent shall arrange for his attendant to submit monthly reports in which the attendant states for each day Respondent had office hours, how many patients were seen, how many required a physical examination, and who was with Respondent when he conducted a physical examination.

8. Respondent shall continue in treatment with Respondent's present therapist and inform Respondent's therapist of all terms and conditions of this Consent Order. Respondent shall submit proof acceptable to the Commission that he has so informed his therapist.

9. Respondent shall arrange for Respondent's therapist to submit written quarterly reports to the Commission or a successor agency, commencing a month from the effective date of this Order, indicating that Respondent is making satisfactory progress in dealing with the problems that led to the incident of April 12, 1987.

10. Respondent shall continue in treatment until the therapist certifies in writing that Respondent is ready to stop therapy, and submits a final report to the Commission. The Commission shall approve Respondent's ceasing treatment prior to Respondent's discontinuing therapy.

11. In the event that Respondent terminates therapy prior to discharge by the therapist, the therapist shall immediately notify the Commission that Respondent has left treatment.

12. In the event that Respondent moves permanently or temporarily, Respondent shall notify the Board of Medical Examiners or a successor agency, within ten (10) days of the move.

13. In the event that Respondent changes where he provides medical services, either by adding to his medical duties and responsibilities as an employee, independent contractor, or a private physician, or hires different or additional employees, Respondent shall notify the Commission within ten (10) days of the change. The conditions listed in paragraphs 3-7 will apply, and there must be compliance within two (2) weeks of the change.

14. Respondent shall complete one hundred (100) hours of community service which has been approved by the Commission within two (2) years.

15. Respondent shall not engage in the conduct that led to the charge by the Commission, and shall practice in accordance with the Medical Practice Act; and be it further

ORDERED that in the event the Commission receives information that Respondent does not have an attendant in the examining room when he performs a physical examination, or if the Commission receives a report from Respondent's supervisor or therapist indicating that Respondent has engaged in inappropriate, intimate, or sexual relations with a patient, or that Respondent is a danger to himself, or the public safety, health, or welfare, the Commission, without prior notice and an opportunity to be heard may suspend respondent's license, provided that Respondent is given immediate notice of the charges and an opportunity for a hearing thirty (30) days after requesting same; and be it further

ORDERED that if Respondent violates any other term of Respondent's probation, after notice and a hearing, and determination of failure to meet the condition, the Commission may suspend or revoke Respondent's license; and be it further

ORDERED that after two (2) years after the effective date of this order, the Commission will entertain a petition for termination of Respondent's probationary status and reinstatement of Respondent's license to practice medicine in Maryland without any conditions or restrictions whatsoever. At that time, if Respondent has complied with all conditions of probation and there are no outstanding complaints pending against Respondent, the Commission will reinstate Respondent's license without any conditions or restrictions whatsoever; and be it further

ORDERED that a copy of this Order shall be filed with the Board of Medical Examiners in accordance with Health Occupations Article, §14-507; and be it further

ORDERED that this is a final order.

HILARY T. O'HERLIHY MD, Chairman
Commission on Medical Discipline

Consent

By this Consent, I hereby admit the truth of the Findings of Fact, and accept and submit to the foregoing Order and its conditions. I acknowledge the validity of the Order as if made after a hearing in which I would have had the right to counsel, to confront witnesses, to give testimony, to call witnesses on my own behalf, and to all other substantive and procedural protections provided by law. I also recognize that I am waiving my right to appeal any adverse ruling of the Commission that might have followed any such hearing. By this consent, I waive all such rights and acknowledge that by my failure to abide by the conditions of the Order, I may suffer disciplinary action against my license to practice medicine in the State of Maryland.

I further acknowledge that the Order provides that my license can be suspended without prior notice and an opportunity to be heard in the event that the Commission receives notice from my supervisor or my therapist that I have engaged in intimate or sexual relations with a patient; or that I am a danger to the public safety, health, and welfare, or myself; or that I do not have an attendant in the examining room when I am performing physical examinations. I acknowledge that I will be given immediate notice and an opportunity to a hearing within thirty (30) days of my requesting same.

I sign this Order after having an opportunity to consult with an attorney, without reservation, and I fully understand its meaning.

ERNESTO RIVERA MD

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Hotline Numbers for Impaired Professionals

Physicians -- 727-0120
Dentists -- 964-2275
Attorneys -- 685-7878
Pharmacists -- 727-0746

Emergency Psychiatric Beds
800-492-0610

In the Matter of
Wilfredo Fernandez-Vila MD
Before the
Maryland Board of
Physician Quality Assurance

April 1990

Israel H. Weiner MD, Chairman
Board of Physician Quality Assurance
Department of Health and Mental Hygiene
P.O. Box 2571
4201 Patterson Avenue
Baltimore, MD 21215-0002

RE: Surrender of License

Dear Dr. Weiner and Members of the Board:

Please be advised that I have decided to surrender my license to practice in the State of Maryland. I hereby affirm that I am presently licensed to practice medicine in the State of Texas. The decision to surrender my license in the State of Maryland is REVOCABLE.

It is my understanding that this letter of surrender will be considered a public document upon my execution of the document, dated April 22, 1990.

I understand that, upon the surrender of my license to practice medicine in the State of Maryland, I may not give medical advice in Maryland to any individual, for compensation or otherwise, and may not prescribe medications. In other words, I understand that surrender of my Maryland license means that I am in the same position as an unlicensed individual in the State of Maryland.

My decision to discontinue the practice of medicine in the State of Maryland has been prompted by an investigation of my practice by the Maryland Board of Physician Quality Assurance (the Board). This investigation revealed the following:

1. That on September 4, 1987 I entered into a Memorandum of Agreement with the United States Department of Justice Drug Enforcement Administration, Docket 86-90, in which I agreed not to administer, dispense, prescribe, order, or otherwise handle any Schedule II, II N, III, III N, or IV controlled substances, or any Schedule V narcotic controlled substances for a period of five (5) years after the execution of the agreement;
2. That on October 29, 1988, I entered into an Agreed Board Order with the Texas State Board of Medical Examiners, and consented to abide by certain restrictions on my license to practice medicine in the State of Texas, among which were the following:

   a. Consenting that my license to practice medicine in the State of Texas be placed on probationary status until September 3, 1992;
   b. Remaining in compliance with the DEA

Agreement, docket 86-90, dated September 4, 1987; and

c. Enrolling in and completing a two (2) week preceptorship on the Prevention and Treatment of Drug Abuse.

On March 16, 1990 I received notice, through a telephone conversation with Robert J. Gilbert, Assistant Attorney General for the State of Maryland, of the Board's vote of January 25, 1989, to charge me under the Maryland Medical Practice Act (the Act), Md. Health Occ. Code Ann. §14-504(a)(10) and §14-504(a)(21).

Section 14-504(a) provides, in pertinent part:

> Subject to the hearing provisions of 14-505 of this subtitle, the Board, on the affirmative vote of a majority of its fully authorized membership, may reprimand any licenses, place any licensee on probation, or suspend or revoke a license if the licensee:
> (10) Promotes the sale of drugs, devices, appliances, or goods so as to exploit the patient for financial gain.
> (21) Is disciplined by a licensing or disciplinary authority or convicted or disciplined by a court of any state or country ... for an act that would be grounds for disciplinary action under this section.

I affirm that I have been advised by Mr. Gilbert that I have a right to legal counsel in the matters herein, and have, in fact, consulted with an attorney in this matter.

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My decision to surrender my Maryland license and to discontinue the practice of medicine in the State of Maryland has been prompted by my desire to avoid being charged under the Act, Title 14, Health Occupations Article of the *Annotated Code of Maryland*. The basis for charges against me would include the results of the investigation as described above.

I have not practiced medicine in Maryland since (never). I affirm that I do not have any hospital or office privileges in Maryland.

I affirm that I do not have a United States Drug Enforcement Administration Controlled Substances Registration Certificate for the State of Maryland. I affirm that I do not have a Maryland Controlled Dangerous Substances Registration Certificate issued by the Maryland Division of Drug Control. I affirm that I do not have any Drug Enforcement Administration order forms, or any Maryland prescription pads or order forms.

I am licensed to practice medicine in the State of Texas, license number D3864. I acknowledge that upon the execution of this document, the Board will send a copy of this Letter of Surrender to G.V. Brindley, Jr., MD, Executive Director, Texas State Board of Medical Examiners, P.O. Box 13562, Capitol Station, Austin, TX 78711.

I acknowledge that the Board will send a copy of this Letter of Surrender to the following:

1. Mr. Robert Bickel, Group Supervisor, Drug Enforcement Administration, 31 Hopkins Plaza, Room 955, Baltimore, MD 21201.
2. Mr. Charles Tregoe, Chief, Division of Drug Control, 4201 Patterson Ave. Baltimore, MD 21215.

I understand that the Board will acknowledge to the Federation of State Boards and to any individuals who have made a Public Information Act request to the Board that I have surrendered my license as resolution of the matters pending against me.

Before the Board accepts this Letter of Surrender as a resolution of this matter, I must present to the Board Maryland License D03201, including any renewal certificates and wallet-sized renewal cards.

Finally, I wish to make clear that I have consulted with an attorney before signing this letter SURRENDERING my license to practice medicine in Maryland. I understand both the nature of the charges against me and also this letter of surrender. I make this decision voluntarily and knowingly.

WILFREDO FERNANDEZ-VILA MD

Physicians' Quality Assurance Board Actions appear regularly in MMJ.

A tribute to *Edward J. Kowalewski MD* on the occasion of his retirement as Professor and Chairman of the Department of Family Medicine at the University of Maryland School of Medicine was held in late April in Baltimore.

Since his arrival on the Baltimore campus 18 years ago, Kowalewski has directed the growth of the department from its diminutive size of six residents to its present mature complement of thirty six. Graduates of the program have had significant impact on the availability of well-trained family physicians in the primary care arena of the American healthcare system.

Prior to his University experience, Kowalewski received good preparation via his many years of private practice and from his involvement at various levels of the Pennsylvania Academy of Family Physicians and the American Academy of Family Physicians, rising to serve as President of the latter just prior to his move to Baltimore and his redirection into full-time academic life.

■ ■ ■

Emile R. Mohler, Jr., MD, Ellicott City, took office as governor for the Maryland Chapter of the American College of Physicians (ACP) during the college's recent 71st Annual Session. As ACP governor, he represents more than 1,200 Maryland internists to the national ACP Board of Governors and oversees membership activities such as recruitment and local-meeting planning.

A graduate of Georgetown University School of Medicine and a specialist in hematology, Mohler is chairman of the Department of Medicine and chief of the Section of Hematology at St. Agnes Hospital, Baltimore. He is a Fellow of ACP.

■ ■ ■



Sinai Hospital physician *Robert A. Liss MD* (right), an Attending Ophthalmologist, is the 1990 winner of the Golden Apple Award. Dr. David Evans, a Chief Resident in Medicine, poses with him. The annual award is made by the House Staff Association to a Sinai physician who showed excellence in teaching residents during the year.

■ ■ ■

Richard Starr Ross MD, Dean of The Johns Hopkins University School of Medicine, retired in at the end of

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June, leaving both a fund for young physicians and a new medical research building bearing his name.

Ross's successor, *Michael M.E. Johns MD*, former head of the Department of Otolaryngology - Head and Neck Surgery, officially took office on July 1.

During Ross's 15-year deanship, the second longest in Hopkins' 100-year history, the School of Medicine has doubled its research space and moved from seventh position in the National Institutes of Health peer-reviewed research funding to second place.

Ross, former head of the division of cardiology at Hopkins is the author of more than 150 scientific articles on cardiovascular physiology and disease and has been president of the American Heart Association. He has edited modern editions of the classic medical textbook, *The Principles and Practice of Medicine.* He also is a member of the National Academy of Science's Institute of Medicine.

■ ■ ■



Bernard O. Thomas MD was one of the honorees of the Frederick Medical Society's May meeting. Thomas was honored as a 50-Year member of the Medical and Chirurgical Faculty of Maryland. *Steven Brand MD* also was honored by Med Chi for his legislative efforts and dedicated service in advancing quality healthcare in Maryland. From left are Dr. Thomas receiving his 50-year pin from *Reynaldo L. Lee-Llacer MD*, president of Med Chi and principal speaker of the evening; and *Gerrit J. Schipper MD*, president, Frederick Medical Society. ■

Physicians wanted for leading practice

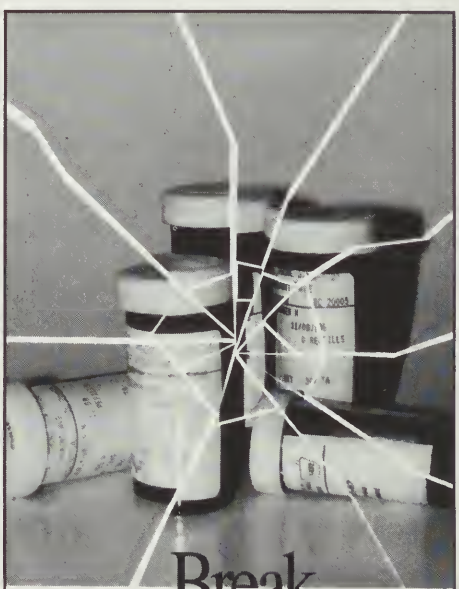
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MISCELLANEOUS MEETINGS

September 14-16	**Medical and Chirurgical Faculty Semiannual Meeting**, Carousel Hotel and Resort, Oceanfront at 118th St., Ocean City, MD. Fee: Free for Med Chi members, students and residents; $150 nonmember physicians; $35 allied health professionals. 12 AMA Cat I credits. Info: Ralph Tyksinski, Director, Education and Meetings Management, Med Chi, 1211 Cathedral St., Baltimore, MD 21201 or call 301-539-0872 or 1-800-492-1056.
September 15	**Focus: Breast Cancer 1990 - Treatment and Reconstruction**, Maryland Chapter, American College of Surgeons and co-sponsor, The American Cancer Society, Maryland Division, Inc. 8 a.m. - noon, Sheraton Inner Harbor Hotel, Baltimore. No registration fee; 3 CME credits. Info: Program Chairman E.S. Epstein MD 301-542-4700.
September 20-21	**Second Annual Trauma Conference**, Carousel Hotel and Resort, Ocean City, MD. Sponsored by Peninsula General Hospital Medical Center. Fee: $100. Info: D. Kwiatkowski 301-543-7328.
October 6	**Modern Approach to Ventricular Arrythmias**, symposium sponsored by the Department of Medicine, Division of Cardiology, Harbor Hospital Center, Baltimore. AMA Cat I credits. Info: 301-347-3501.
October 12-13	**Fourteenth Annual Conference on Dyslexia**, Bryn Mawr College, Bryn Mawr, PA. Co-sponsored by the Greater Philadelphia Branch of the Orton Dyslexia Society and the Child Study Institute of Bryn Mawr College. Fee: $85 members of Orton Dyslexia Society; $115 nonmembers. Write for brochure: GPBODS, Box 251, Bryn Mawr, PA 19010; or call 215-527-1548.
October 20-21	**Practical Clinical Management: Drug Abuse Education for the Primary Care Physician,** Convention Center, Baltimore, MD. Fee: $75 Med Chi members; $100 nonmembers; $30 residents and students. 12 PRA/AMA Cat I credits. Info: Med Chi Drug Conference, 1211 Cathedral St., Baltimore, MD 21201-5585 or call 301-539-0872 or 1-800-492-1056.
October 25-27	**New Techniques and Concepts in Cardiology** Hyatt Regency Hotel, Washington DC. Sponsored by the American College of Cardiology. Info: Registration Secretary, Extramural Programs Department, American College of Cardiology, 9111 Old Georgetown Rd., Bethesda, MD 20814 (1-800-253-4636 or 301-897-5400, ext. 228).
October 29-31	**NIH Consensus Development Conference: Diagnosis and Management of Asymptomatic Primary Hyperparathyroidism,** Masur Auditorium, Warren Grant Magnuson Clinical Center, NIH, Bethesda. Info: Conference Registrar 301-468-MEET or FAX 301-770-5164.

Shady Grove Adventist Hospital, 9901 Medical Center Drive, Rockville, MD. Info: 301-279-6000.

September 6	**Update in Treatment of Liver Disease and Biliary Tract Disease**
September 13	**Nonsurgical Vascular Surgery: Laser Arteriectomy and Other Things**
September 27	**Management of the Overdose Patient**
October 4	**MRI and CT Update**
October 11	**Hyperbaric Oxygen Therapy**
October 18	**Seasonal Affective Disorders: A New Light on the Eye**
October 25	**Medical Malpractice: Legislative Update**

THE JOHNS HOPKINS MEDICAL INSTITUTIONS

All courses at the Turner Auditorium unless otherwise indicated. Sponsored Continued Education Activities for 1990. Info: Office of Continuing Education, 720 Rutland Ave., Turner Auditorium, Baltimore, MD 21205 (301-955-5880).

September 13-14

Pediatrics for the Practitioner - Update 1990. Fee: physicians $235; residents, retired physicians, & allied health professionals $160; 14.5 AMA Cat I credits. Info: J. Ryan 301-955-2959.

October 3-6

Sixteenth Annual Topics in Gastroenterology and Liver Disease, sponsored by The Harvey M. and Lyn P. Meyerhoff Digestive Disease and Inflammatory Bowel Disease Center and Department of Medicine. Fee: physicians $425, residents and fellows $210 (with letter from department chairperson verifying status); 23.5 AMA Cat I credits. Info: 301-955-2959.

October 22-27

Thirty-second Annual Emil Novak Memorial Course: Gynecology, Gynecological Pathology, Endocrinology, and High-Risk Obstetrics. Fee: physicians $650, residents $450 (with letter from department chairperson verifying status); 44.5 AMA Cat I credits. Info: C. Kearney 301-955-2959.

October 30-31

3D Neuroimaging: Theory and Clinical Applications, sponsored by the Department of Radiology and Radiological Sciences, The Johns Hopkins Medical Institutions. Fee: physicians $300, Johns Hopkins staff $200; 16.5 AMA Cat I credits. Info: F. Boling 301-955-2959.

November 1-4

Principles and Practice of MRI, at the Hyatt Regency Baltimore, sponsored by the Department of Radiology, Division of Magnetic Resonance Imaging, The Johns Hopkins Medical Institutions. Fee: physicians $495, residents and fellows $250; 24 AMA Cat I credits. Info: D. Heydinger 301-955-2959.

November 2-3

Progress in Pediatrics, sponsored by the Children's Medical and Surgical Center, The Johns Hopkins Medical Institutions. Fee: physicians $125, residents, fellows and nurse practitioners $75; 11 AMA Cat I credits, 11 PREP credits, other appropriate credit is pending. Info: P. Campbell 301-955-2959.

February-April 1991

Thirty-second Postgraduate Institute for Pathologists in Clinical Cytopathology for Board Certified (or qualified) pathologists as a subspecialty residency. 152 AMA Cat I credits in two courses, both of which must be taken.

February-April Home Study Course A, personal reading and microscopic study at own lab in preparation for Course B.

April 14-April 25 In-Residence Course B, lecture series, laboratory, and clinical experience at the Johns Hopkins Medical Institutions, Baltimore.

Course A materials will be sent to each participant within the US and Canada for home study. Participants *outside* the US and Canada must make arrangements to study Course A before Course B. *The entire course is given in English.*

Application and preregistration is advised ASAP; preregistration must be completed before March 15, 1991 unless by special arrangement. Info: J. Frost MD or B. Remley, 111 Pathology Building, The Johns Hopkins Hospital, Baltimore, MD 21205 USA (301-955-8594).

Continuously Throughout the Year

Ophthalmic Electrophysiology Technician Training Course (on-going 1-week course by appointment). The Wilmer Eye Institute, Baltimore. Info: C. Kearney.

The Department of Radiology and Radiological Sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams 301-955-3169.

Visiting Physicians - offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. Fee: $500; 40 AMA Cat I credits.

Johns Hopkins Medical Grand Rounds - Accredited audiovisual continuing education series of case discussion for clinicians; 30 topics/year in 5 bimonthly programs. Individual and group subscriptions; 40 AMA Cat I credits. Info: 301-955-3988.

Microsurgery Training at The Johns Hopkins Hospital, one week, offered continuously throughout the year. 40 AMA Cat I credits. Info: P. Williams 301-955-3169.

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CME Courses: For each course additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (301-328-3956) or by calling the phone number listed under a specific program. FAX 301-328-3103.

August 23

Menopause: New Insights into Management, Stouffer Harborplace Hotel, Baltimore. Fee: $45; 4.5 AMA Cat I credits. Info: S. Stenhouse 301-328-1956.

September 14

Current Concepts in Ophthalmology: Tenth Annual Clinical Conference, Columbia Inn, Columbia. Includes the Fourth Annual Lois A. Young-Thomas Memorial Lecture. Fee: $60; 6 AMA Cat I credits.

October 1

Ocular Plastic Surgery: Current Concepts and Techniques, sponsored by Maryland Society of Eye Physicians and Surgeons; Columbia, MD. Info: T.S. Young 301-328-2399; FAX 301-328-8514.

October 6-7

Sixth Annual Contact Lens Symposium, Stouffer Harborplace Hotel, Baltimore. Fee: $165 before September 21; 12 AMA Cat I credits.

December 7-8

Cancer in Minorities, Stouffer Harborplace Hotel, Baltimore. Fee and credits to be determined. Info: S. Stenhouse 301-328-3956.

Continuously Throughout the Year

University of Maryland Dean's Conferences - Held monthly, October through April. Designed for the Family/General practitioner and Internist. Each conference highlights different clinical Departments placing emphasis on the practical methods being used and researched at the University of Maryland. Extension programs are planned to complement the programs held on the University's Baltimore campus.

Visiting Professor Program - Directory of speakers and topics available for area hospitals and other healthcare organizations. No administrative fee. Info: 301-328-3956.

Visiting Practitioner Preceptorships - Opportunity for physicians to participate in clinical situations in the University of Maryland Medical Systems. Requires approval from clinical department/division heads. Hour-for-hour Cat I credits available. Direct all inquiries to CME 301-328-3956.

Departmental Rounds and Conferences - Weekly, hands-on and lecture presentations hosted by the University's clinical departments. Hour-for-hour AMA Cat I credits available. Brochure available.

Advanced Trauma Life Support Provider/Instructor Programs sponsored by University of Maryland/MIEMSS. Info: M. Nelson 301-328-2919.

September 12-14 Instructor
October 18-19 Provider
November 15-16 Provider
December 6-7 Provider

Morality and Sex: BPQA Decisions

Society expects its responsible members to adhere to certain minimal moral standards. The State of Maryland, therefore, has linked medical licensure to morality in two places in the Medical Practice Act.

To qualify for a medical license, Section 14-305 requires that the applicant be at least 18 years old, appropriately educated, competent in the English language, and "of good moral character." In addition, Section 14-504, which sets out the 30 grounds under which the Board of Physician Quality Assurance (BPQA) may reprimand, place on probation, suspend, or revoke a licensee, includes "(3) Is guilty of immoral or unprofessional conduct in the practice of medicine." Sexual misbehavior has long been considered an indication of immorality, and, regrettably, the Board sometimes must deal with such cases.

Societal standards of sexual conduct have become much more liberal in this century, and especially over the past two or three decades. Much sexual activity that even in recent years would have been considered as immoral is no longer generally considered to be so. Examples include premarital/extramarital sex and homosexual activities, which might well have been considered evidence of a deficiency in moral character in past years. These activities, in themselves, probably would not be considered immoral by the 1990 Board.

There are some sexual activities, however, that do remain beyond the limits of even today's liberalized morality. Rape (either forcible or statutory) or sexual child abuse almost would certainly be considered a valid basis for Board action. A recent child abuse case resulted in prompt Board action (the summary suspension of a physician's assistant certificate) even though the offensive acts did not take place in a professional setting.

Although the Board's attitude toward sex in general reflects the contemporary liberal view, when sex enters the practice of medicine by involving patients, the Board becomes much more conservative and intolerant. The basic premise of the Board's outlook is that, because of the special nature of the physician-patient relationship, patients cannot be considered to be freely consenting to a sexual relationship or act. The professional relationship always involves some degree of psychological dependency, and sex between physician and patient is always considered to be exploitative and manipulative on the part of the doctor. This viewpoint is, of course, neither new nor original; it is clearly enunciated in the Hippocratic Oath of ancient Greece. How severely the Board reacts to this kind of sexual activity depends, at least in part, to the specific facts of the professional relationship. The more psychologic dependency in a specific relationship and the more vulnerable the patient, the more egregious the physician's conduct will be considered. Thus, sex between psychiatrist and patient is the most flagrant violation of morality and, unfortunately, one of the most frequent.

One of the most outrageous cases in recent years came before the Commission on Medical Discipline, the predecessor to the present Board. It was that of a psychiatrist who prescribed sexual intercourse as therapy for his patient, administered the treatments, and then billed Blue Shield for the therapeutic sessions. His license was revoked.

Another Commission case, only slightly less flagrant, involved a psychiatrist who introduced his patient to hallucinogenic drugs and, under their influence, had intercourse with her on multiple occasions. He was suspended and allowed to resume practice only in a strictly supervised and controlled hospital setting.

The BPQA also has heard cases of "meaningful relationships" developing in the course of psychotherapy. The Board considers these to be most unprofessional; "true love" is not a valid defense. In such a recent case, the physician's license was suspended and eventually restored subject to restrictive probationary requirements. After the breakup of the affair, the patient initiated a malpractice action, which, as in most of these cases, was considered virtually indefensible and resulted in a substantial settlement payment. Should such a situation arise in the course of a therapeutic relationship, the proper conduct on the part of the physician is to terminate the treatment and arrange for transfer of the patient to the care of another doctor.

Not all sex cases involve psychiatrists. For example, a recent case involved a family practitioner, who had sexual affairs with multiple female patients over the course of several years. Despite evidence that he was a highly competent and dedicated physician, the Board revoked his license, allowing him the opportunity to reapply for restoration of the license no sooner than a year, at which time he had to bear the burden of proving he was worthy to resume the practice of medicine.

Sexual misconduct does not have to involve intercourse to be objectionable. Another Commission case was that of a gynecologist who was excessively affectionate with his patients. There were multiple complaints by women of erotic kissing and unencouraged sexual caresses and of embarrassing "dirty" comments. There was no possibility of misinterpretation because of the number of complaints. This doctor's license was suspended. Gynecologists surely should appreciate the necessity for sensitivity in dealing with the deeply personal nature of their specialty. Aberrant behavior can be most damaging to patients; one of the complainants has never been able to bring herself to have another gynecologic examination.

Sexual misconduct need not directly involve a patient to be considered "in the practice of medicine." Recent-

ly the BPQA was confronted with a case of a resident who allegedly went too far in consoling the wife of his critically ill patient. After discussing her husband's medical problem and trying to reassure her, he invited her to dinner; after dinner he escorted her to her motel room. There, sympathy led to intimate physical consolation. The wife, overcome by guilt, promptly confessed the incident to her husband, still a patient in the ICU. The Board considered these regrettable events to be "in the practice of medicine," and the physician escaped sanction only because he was not licensed and no longer in Maryland by the time the husband's complaint was received. The licensing board of the state in which he was then working was informed of the allegation.

In contrast, another case involving a patient and his wife resulted in no Board action. A surgeon had a long-standing sexual relationship with his secretary. During the course of this affair, her husband became a patient for a fairly routine surgical procedure, which was carried out uneventfully. Well after his recovery, the husband discovered the infidelity, and filed a complaint with the Board. The Board concluded that the affair did not affect him as a patient, and therefore did not occur "in the practice of medicine." It should be understood this decision does not constitute approval of or condone adultery but merely means the Board did not believe the conduct violated the statutory language of the law.

As students of human biology, physicians understand the strength and urgency of the sexual instinct, as do poets and novelists, and other observers of human behavior. Physicians, however must recognize their special place in society, the special franchise that being a doctor entails, and the special responsibilities that follow. Patients expect to be disrobed for examinations, to be touched in private places, and to discuss intimate details of their life and thoughts. They have a right to respect and consideration, and they have the right not to be viewed or treated as sexual objects by their physicians. When a patient enters into a physician-patient relationship, that very act is indicative of an implicit trust that must not be violated. Physicians must respect the clear and sharp boundary in their practice of medicine and should expect censure when that boundary is disregarded.

ISRAEL H. WEINER MD

The opinions expressed herein are those of the author and have not been endorsed by the Board of Physician Quality Assurance, although the cases described reflect prior board actions. ■

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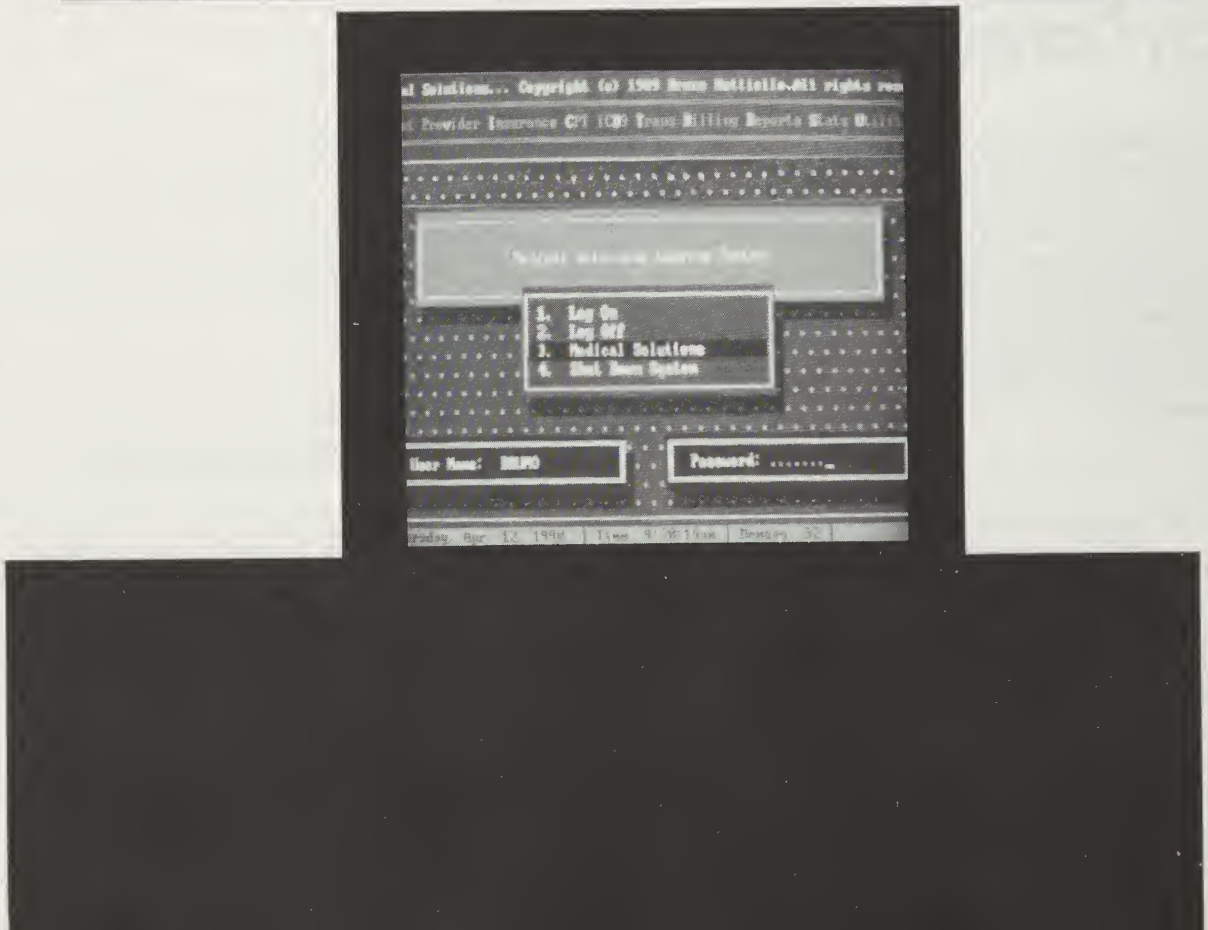
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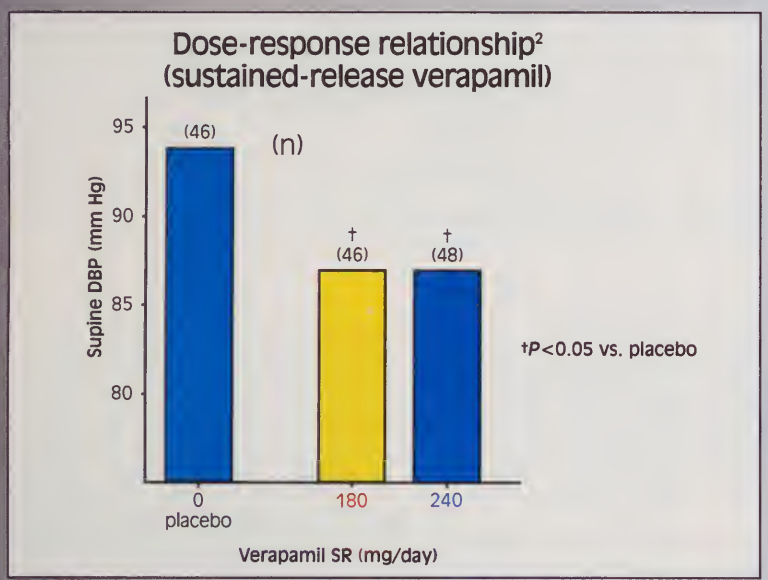
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BRIEF SUMMARY

Contraindications: Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

Warnings: Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

Precautions: Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

Adverse Reactions: Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°,2°,3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence.

References:

1. 1988 Joint National Committee: The 1988 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. *Arch Intern Med* 1988;148:1023-1038.
2. Data on file, G.D. Searle & Co.

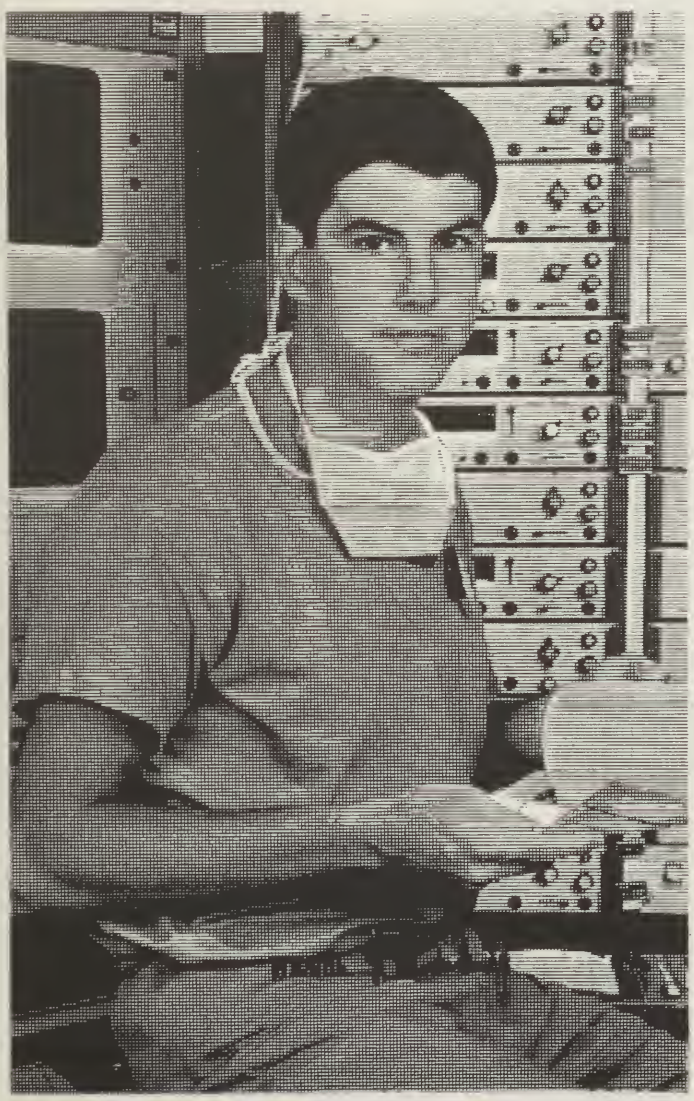
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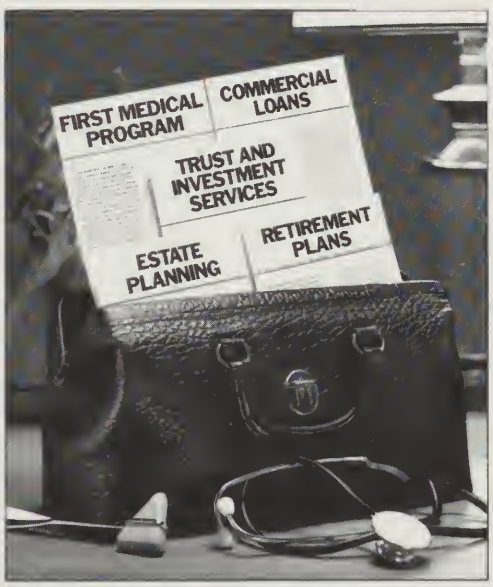
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ARTICLES

Greater Baltimore Medical Center: 25 Years of Medical Leadership 919
L. Myrton Gaines, Jr. MD

Current Concepts in Olfaction 921
Mark C. Loury MD
Because of the location of the olfactory epithelium and bulb, the processes involved in olfaction have been difficult to evaluate. However, the recent application of comprehensive nasal endoscopy, reproducible olfactory testing, and molecular biologic techniques to the study of the transduction of olfactory information has elucidated some of the events in odorant perception.

The In Vitro Fertilization Program at the Greater Baltimore Medical Center 927
Jairo E. Garcia MD
During its six years of existence, GBMC's IVF program has achieved a 23 percent "take home baby" rate per cycle with embryo transfer.

Pathogenic Factors in the Development of Type I and Type II Diabetes Mellitus: 1990 933
Thaddeus E. Prout MD, FACP
The pathogenesis of IDDM and NIDDM indicates a distinct difference between these diseases. Viral illness is implicated in IDDM, linked with evidence for an immune deficiency. NIDDM is not linked to viral illness or autoimmunity but is highly influenced by the inheritance of a defect in insulin production.

Parvovirus and Epidemic Arthritis 939
Charles A. Haile MD
Five cases of acute polyarthritis in individuals with serologic evidence of recent human parvovirus B_{19} infection were seen in one medical practice. Several individuals had had direct exposure to children with rash, and fifth disease was endemic in the community. All cases were associated with the presence of both IgG and IgM antibody to human parvovirus.

Cervical Spondylosis: A Therapeutic Update 947
Kenneth J. Murray MD, PhD; Albert H. Dudley, III MD and Howard Moses MD
Cervical spondylosis, also known as cervical osteoarthritis, is a common spine condition whereupon bone spur formation occurs.

Role of the Community Hospital in Cancer Research 953
Gary I. Cohen MD and Margaret Tillett RN, OCN
We review here the historical development, rationale, and advantages of community hospital participation in controlled clinical trials, the primary source of reliable advances in the management of patients with cancer.

Definitive Irradiation Following Breast-Conserving Surgery for Early Stage Breast Cancer 959
Robert K. Brookland MD and Albert L. Blumberg MD
Definitive irradiation following breast-conserving surgery for early stage breast cancer can be offered in a community cancer center and achieve excellent local control, survival, and cosmesis. The results confirm the validity of patient choice in selecting this breast-conserving modality as an alternative to mastectomy for selected patients with stage I and II breast cancer.

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Ann Wintriss retired at the end of July after completing eight and a half years as the Managing Editor of the *Maryland Medical Journal*. She was instrumental in many of the layout and design changes that enhance the journal's readability. During her tenure, the journal's name reverted to the title used from 1877-1918; a new logo provided the cover with a dramatic facelift. To recognize the improving quality of scientific articles being submitted to the *MMJ,* annual awards were established in 1987 for best article by a practitioner and best article by a resident-in-training. To meet the needs of *MMJ*'s readers, a number of new Departments (for example, Today's Psychiatry, Computer Bytes, Quality Practice Digest) were created, as well as the concept of "dedicated" issues. Ms. Wintriss served Med Chi well, and her dedication and expertise will be missed.

Cover: The Greater Baltimore Medical Center's diverse services and advancements in technology and patient care are outlined in this issue's articles. Mary Kerney RN and Terry MacLeod RN use heart monitors in 1974 (inset) and 1990, illustrating the technological changes which have taken place.

Cover color photo by John Dean; design by Virginia Carter.

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Intraductal Carcinoma of the Breast (IDC)

With the availability of new and more sophisticated mammographic equipment, early breast lesions are being detected more often. Intraductal cancer (IDC) is usually being diagnosed as a cluster of microcalcifications and occasionally as abnormal shadows. The recent demonstration that segmental (partial) mastectomy and axillary nodal dissection have produced comparable results to modified radical mastectomy in the management of patients with infiltrating ductal carcinomas makes the evaluation of conservative treatment for IDC a compelling issue. The continued use of mastectomy for such noninvasive cancer is coming under greater challenge as the standard treatment for invasive cancers has shifted toward the use of breast preservation operations. Those who advocate mastectomy for IDC are finding themselves in the difficult position of selecting a prophylactic therapy that is more severe than the treatment of the disease they are attempting to prevent.

A review of the data describing the natural history of IDC demonstrates serious deficiencies because the standard treatment of this disease had been mastectomy. Therefore, there was no opportunity for an evaluation of the behavioral characteristics of IDC. The few available studies in which IDC patients are being treated by local incisions are derived from retrospective anecdotal case reviews. The property of IDC having the most important therapeutic relevance is the incidence of subsequent development of invasive ductal carcinoma following local excisions. Three retrospective studies (which suffer from small sample sizes ranging from 15-25 patients) with the mean follow-up time varying from 15-22 years, revealed that one-quarter to one-half of the patients who were diagnosed with IDC and had been treated by biopsy only, will presumably go on to develop infiltrating cancer.[1-3] The mean interval time between the diagnosis of IDC and the development of infiltrating ductal carcinoma is about 10 years. Although this disease has a greater than 50 percent reported incidence of ipsilateral multicentricity, virtually all the invasive cancers occur not only in the same breast, but in the same quadrant as that of the initial biopsy.[2,3] On the other hand, the review of 27 patients with IDC, who were studied by the National Surgical Adjuvant Breast and Bowel Project (NSABP), revealed that there was almost no incidence of multicentric disease. It seems that the older studies[1-3] have failed to differentiate multicentricity from multifocality and residual noninvasive tumors in the same breast.

It has also been reported that 5-20 percent of the patients with IDC have residual foci of invasive carcinoma on closer histological examination. However, when IDC criteria were rigidly applied, this figure was found to be closer to 5 percent.[4] It has also been reported that 1-5 percent of IDC patients have metastases to their axillary lymph nodes. The retrospective nature and methodologic weaknesses of these studies make it difficult to draw firm conclusions relative to the behavior of this disease. However, none of the first 300 patients who were entered on NSABP Protocol B-17 and who were treated by partial mastectomy and axillary dissection were found to have involved axillary lymph nodes. Therefore, Protocol B-17 was amended to surgically manage IDC patients by partial mastectomy without axillary lymph node dissection.

Furthermore, the early results from several recent studies had suggested that radiation therapy administered after partial mastectomy may reduce the incidence of recurrence. However, none of these studies were randomized to prove the value of irradiation, and each had a small number of patients. On the other hand, the NSABP had over 450 patients admitted to Protocol B-17 who were managed by partial mastectomy with or without breast irradiation. When the results of this study become available, it will prove or disprove the value of radiation therapy, and will reveal the incidence of recurrences which may reflect on the incidence of multicentricity in this disease. This study is still open for patient accrual and every effort should be made to admit IDC patients on it.

At the University of Maryland, call E. George Elias MD at 328-5224; at Mercy Medical Center, call Marvin J. Feldman MD at 783-5858; at Harbor Hospital Center, call Russell DeLuca MD at 347-3386; in the Cumberland area, call John Mehanna MD at 724-5112; and in the Hagerstown area, call Frederic Kass MD at 733-8600.

References

1. Farrow JH. Current concepts in the detection and treatment of the earliest breast cancer. Cancer 1970;25:468-77.

2. Betsil Jr. WL, Rosen PP, Lieberman PH et al. Intraductal carcinoma. Long-term follow-up after treatment by biopsy alone. JAMA 1978;239:1863-67.

3. Page DI, DuPont WD, Rogers LW et al. Intraductal carcinoma of the breast: Follow-up after biopsy only. Cancer 1982;49:751-58.

4. Rosen PP, Senie R, Schottenfeld D et al. Noninvasive breast carcinoma. Frequency of unsuspected invasion and implications for treatment. Ann Surg 1979;189:377-82.

E. GEORGE ELIAS MD, PhD
Professor Surgery & Oncology
Director, Surgical Oncology Program

Tumor conferences are held weekly on Tuesday between 8-9 a.m. in Room N13E28 at the University of Maryland Medical System. Physicians are welcome to attend this open meeting and to present cases and pathological slides. Call the number below by noon Monday to be placed on the schedule.

If you have any questions, call or write the Surgical Oncology Program, University of Maryland Medical System, Room N13E02, Baltimore, MD (301-328-5224). ■

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October 1990
Influenza: Review, and Questions and Answers
and
Updates on Pneumococcal Vaccine and Salmonella enteritidis

1989-1990 Influenza Season

In Maryland during the 1989-1990 influenza season, only Influenza A/Shanghai/H3N2 was isolated from specimens submitted from individual cases and from nursing home outbreaks.

The figure below shows the epidemic curve of the 57 nursing home outbreaks of respiratory illness reported between November, 1989 and April, 1990. Influenza A was isolated in six of the outbreaks, and parainfluenza I and III in two each. The etioiogic agent causing the outbreaks in the other nursing homes was unknown, but the majority were presumed to be influenza outbreaks.

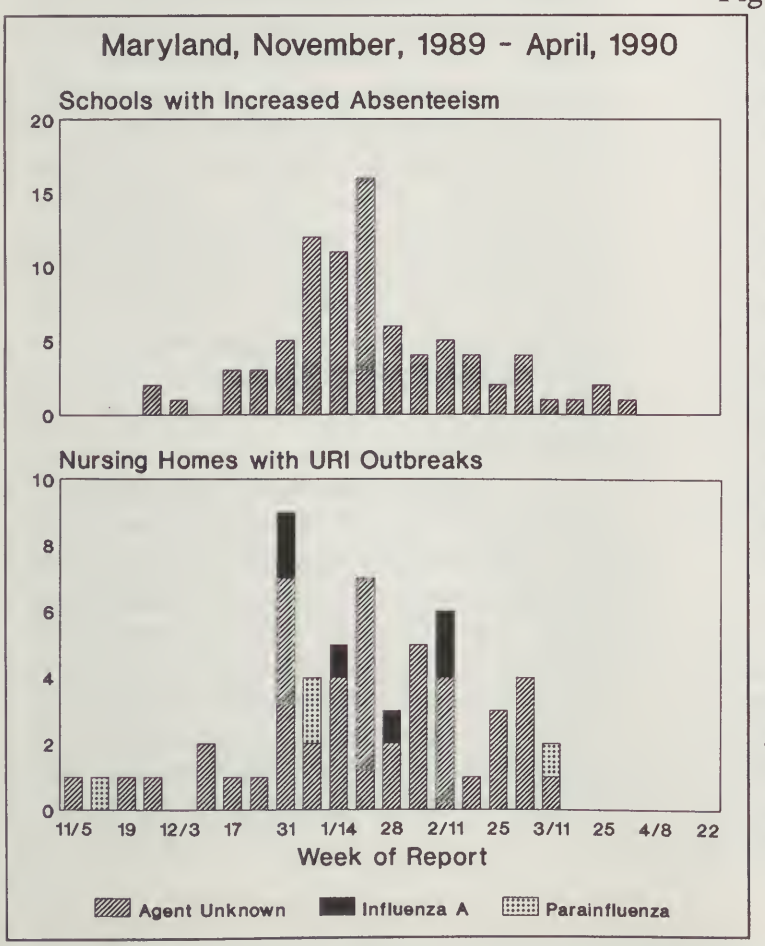


Figure 1 also shows the number of schools reporting increased school absenteeism over the same period. Both nursing home outbreaks and school absenteeism peaked in January.

For control of nursing home outbreaks, both influenza vaccine and amantadine (for influenza A) are recommended; however, we have found that both are underutilized. Vaccine is often given in the fall of the year. Admissions after that time may not be given their shot. Also employees may not be offered vaccine. Fear of side effects and inability to contact all physicians to order amantadine often limit its use.

Questions and Answers on Influenza

The following information is offered in response to common questions about influenza. It is adapted fromThe Texas Preventable Disease News, and includes updated information from "Prevention and Control of Influenza," MMWR 1990:39(no.RR-7).

Q. What is influenza?

A. Influenza, or "flu", is a respiratory disease caused by a virus. There are two main types of influenza virus -- A and B. Each type includes many related viruses or strains, each slightly different from the others. Type A epidemics are generally more frequent and more severe than those of type B.

Q. How serious a disease is influenza?

A. Influenza illnesses range from very mild to severe, depending upon such factors as the individual's susceptibility and general physical condition. Influenza seldom lasts more than a few days. Most people recover within a week without complications, although they may continue to feel weak for several days after the fever subsides. Influenza can, however, last longer and cause life threatening complications in high risk individuals or, rarely, in normally healthy individuals.

Q. Why are some people referred to as "high risk"?

A. The risk of developing severe complications with influenza increases with age (particularly among those cases 65 years of age or older) or in individuals (of any age) with chronic medical conditions. A healthy young person who contracts pneumonia following influenza has a far better chance for survival than an elderly or debilitated person. The chronic conditions which present the greatest risk for serious complications or death from influenza are problems such as diabetes, diseases of the heart, lungs, or kidneys, severe anemia, or chronic illnesses (or medications) which lower the body's resistance to infection.

Q. How is influenza spread?

A. Influenza spreads from person to person through droplets of moisture expelled into the air when a person with influenza sneezes, coughs, or talks. These droplets contain viruses which, when inhaled by other people, can cause infection in those who are susceptible. The incubation period for influenza (the length of time between a person's exposure to disease and actual development of symptoms) typically ranges from 1-3 days.

It has also been shown that influenza spreads very rapidly over great geographic distances. An epidemic of influenza commonly lasts one to two months in any one locality (city/county).

Q. How is influenza diagnosed and treated?

A. Usually, the diagnosis is based on the appearance of "classic" flu symptoms which include fever, chills, headache, cough, and sore and aching muscles in the back, arms, and legs. Confirmation of the diagnosis by laboratory tests is seldom warranted. Such tests are costly and time-consuming, and the patient will usually recover before the results are available. For public health reasons, they are useful to determine the type(s) of influenza virus circulating.

There is no specific treatment, but bed rest, drinking more than usual amount of liquids, and taking pain relievers help reduce the discomfort of the illness.

Aspirin, however, should **not** be given to children or adolescents because of the risk of Reye syndrome. Because influenza is a viral illness, antibiotics are of no use except treating bacterial complications such as pneumonia. One drug, amantadine hydrochloride (see below), has been licensed for use and may prevent illness, if given prophylactically, or reduce the severity or duration of illness when given early after infection with type A influenza viruses. Amantadine is not effective against type B influenza.

Q. Are there other diseases whose symptoms can be confused with those of influenza?

A. Yes, severe colds and many other nasal or bronchial infections have symptoms similar to influenza -- fever, headache, cough, etc. Such infections with non-influenza viruses are particularly common in young children and occur sporadically in adults, who normally have a "true" influenza infection only once every several years.

A diagnosis of influenza is more likely to be correct when an epidemic is in progress.

What some people call "intestinal flu" (nausea, cramps, vomiting, diarrhea) is not flu at all, but an intestinal infection caused by viruses other than influenza. Influenza does not generally cause intestinal problems.

Q. Every year there seems to be a new influenza virus going around. Why?

A. The influenza viruses frequently change; thus from time to time, new strains of influenza virus appear. Epidemics then occur because people have not had previous exposure which would allow them to build up specific immunity (protection) against the new strain.

Q. How are influenza strains named?

A. Strains of influenza viruses are usually named for the locality in which they are first isolated and reported. The virus strain called "Taiwan" influenza (A/Taiwan/86) is a type A influenza virus first reported from Taiwan in 1986, hence its name.

Q. What kind of vaccine is available for the 1990-91 season?

A. Influenza vaccinations should be given annually. A trivalent (three strains), "killed virus" vaccine containing A/Taiwan (H1N1), A/Shanghai (H3N2), and B/Yamagata has been produced for use in 1990-91. Persons 9 years of age and older will require only one dose. For maximum effectiveness, children under 9 will require two doses of "split virus" vaccine about 1 month apart, unless they received influenza vaccine previously (in which case only one current dose is needed).

Q. Who should receive influenza vaccine?

A. To maximize protection of those at high risk of developing complications from influenza, both the persons at risk and their close contacts should be vaccinated. This includes (but is not limited to):

* Persons aged 65 years and older;
* Residents of nursing homes and other chronic-care facilities housing persons of any age with chronic medical conditions;
* Adults and children with chronic disorders, especially pulmonary and cardiovascular disorders, including children with asthma;
* Adults and children who have required regular medical follow-up or hospitalization during the preceding year because of metabolic or renal disease, hemoglobinopathies or immunosuppression (including HIV infection);
* Children and teenagers receiving long-term aspirin therapy;
* Those providing care to high-risk individuals, including health care givers; and
* Household members of high-risk persons.

Q. How safe is the influenza vaccine?

A. Vaccines used in recent years have been associated with only a few reactions. Inactivated influenza vaccine should not be given to persons known to have anaphylactic hypersensitivity to eggs. Some people may have a sore arm for 1 or 2 days. Others may have fever, chills, headache, or muscle aches within the first 48 hours after vaccination. However, it is important to remember that you cannot get infectious influenza from this vaccine.

The vaccine is safe for pregnant women, and such women should be vaccinated if they belong to any of the high-risk groups. Delaying administration of the vaccine until after the first trimester is a reasonable precaution to minimize any concern over the theoretical risk of effects on the fetus unless the woman at risk will be in the first trimester when the influenza season begins.

Q. Is there any other way to prevent influenza other than vaccination?

A. Yes, amantadine hydrochloride may help to prevent type A influenza in certain high-risk persons or their caregivers who need protection during an influenza outbreak. Contingency plans are needed to ensure rapid administration of amantadine to residents and employees of institutions during an outbreak. The patient's age, weight, renal function, presence of other medical conditions, and indications for use of amantadine must be considered, and the dosage and duration of treatment adjusted accordingly (see package insert).

PNEUMOCOCCAL VACCINE: STILL UNDERUTILIZED

Pneumococcal vaccine* remains underutilized, leading to increased hospitalizations, morbidity and mortality from pneumococcal disease. In 1985, < 10% of persons considered to be at increased risk of serious infection were estimated to have ever received pneumococcal vaccine. The vaccine is safe, effective (60-77% vaccine efficacy), and inexpensive. Medicare now covers the cost of the vaccine and its administration. Since 1983, each 0.5 mL dose has contained purified capsular polysaccharide antigens of 23 types of *Streptococcus pneumoniae* (25ug each). In healthy adults, antibody titers remain elevated for at least 5 years after immunization.

Vaccine is indicated for:

* Adults who are at increased risk of pneumococcal disease or its complications because of cardiovascular disease, pulmonary disease, diabetes, alcoholism, cirrhosis, or CSF leaks.
* Adults who are $\geq$ 65 years old.
* Immunocompromised adults at increased risk of pneumococcal disease or its complications (e.g., persons with splenic dysfunction, Hodgkin's disease, lymphoma, multiple myeloma, chronic renal failure, nephrotic syndrome, or organ transplant).
* Adults with asymptomatic or symptomatic HIV infection.
* Children $\geq$ 2 years old with chronic illnesses associated with increased risk.
* Children $\geq$ 2 years old with asymptomatic or symptomatic HIV infection.

Revaccination:

Revaccination with 23-valent vaccine should be strongly considered for persons who received the 14-valent vaccine if they are at highest risk of fatal pneumococcal infection. Revaccination should also be considered for adults at highest risk who received the 23-valent vaccine $\geq$ 6 years before, and for those shown to have rapid decline in pneumococcal antibody levels (nephrotic syndrome, renal failure, or transplant recipients). Revaccination after 3-5 years should be considered for children with nephrotic syndrome, asplenia, or sickle cell anemia who would be $\leq$ 10 years old at revaccination.

* Pneumovax 23, Merck Sharp & Dohme, and Pnu-Imune 23, Lederle Laboratories

Ref: ACIP. Pneumococcal Polysaccharide Vaccine. MMWR 1989; 38:64-74

UPDATE: SALMONELLA ENTERITIDIS AND EGGS

During 1990, 8 outbreaks of salmonellosis have been reported to the Maryland Department of Health and Mental Hygiene, Division of Outbreak Investigation. Of the 8 outbreaks, 7 have been caused by *Salmonella enteritidis* (group D) and one by *S. heidelberg*. The incidence of *S. enteritidis* outbreaks remains high in Maryland, although the number of cases in each outbreak has declined since 1989, when several large restaurant-associated outbreaks were reported. We continue to find eggs or egg-containing vehicles in many of the outbreaks.

Federal Regulations were adopted by the US Department of Agriculture in February, 1990. The regulations deal with the expanding problem of *S. enteritidis* associated with eggs. The regulations cover the identification of layer flocks associated with outbreaks, the testing of the environment of these flocks, and testing of birds if the environment if found positive. If the hens are positive for *S. enteritidis*, the regulations allow restriction of interstate movement of the chickens, eggs, and associated articles from the egg production flock. Eggs from the flock must go to pasteurization, if they are to be sold.

We would like to remind physicians to report cases of salmonellosis and suspected or confirmed outbreaks. Procedures are in place for case and outbreak investigation. Prompt reporting facilitates the process of egg traceback and testing of farms and hens in those egg-associated outbreaks.

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Warnings: *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive tall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses ot VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more trequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first tew weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DOSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% ot hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause ot discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% ot patients, but was not a cause tor discontinuation.

Risk tactors for the development ot hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions.*)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially tollowing the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling ot face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a tall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication ot infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NOTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation ot treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized tor at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect ot VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because ot demonstrated hypokalemia, they should be used with caution and with frequent monitoring ot serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy – Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses ot 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly detined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration ot ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSION: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); pulmonary embolism and infarction; pulmonary edema; rhythm disturbances; atrial fibrillation; palpitation.

Digestive: Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation ot therapy in 0.1% ot hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation ot therapy in 1.9% ot patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A tew cases ot hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, it possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) It the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

It the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended tor patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

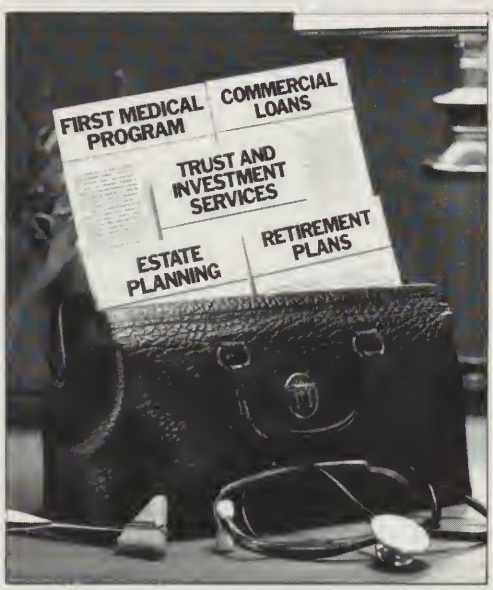
Heart Failure: VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance ot hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects.*) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia: In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure,* WARNINGS, and PRECAUTIONS, *Drug Interactions.*) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, it at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486. J9VS61R2(820)

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Executive Director's Newsletter

October 1990

Complimentary October Drug Conference

Med Chi is offering complimentary registration to physicians for the conference "Practical Clinical Management: Drug Abuse Education for the Primary Care Physician" which will occur on October 20-21 at the Baltimore Convention Center. Planned by Med Chi's Committee on Drugs in concert with the Physician's Rehabilitation Program, this conference is approved for 12 hours in Category I of the AMA Physician's Recognition Award and accepted for 12 prescribed hours by the American Academy of Family Physicians. To receive a complimentary pre-registration form or to register by phone or for more information, call Vivian Smith in the Public Relations Department at 301-539-0872 or toll free 1-800-492-1056.

Med Chi Membership Directory

Recently, Med Chi sent its members a green address verification form for the 1991 Med Chi Membership Directory. Along with this form, a key to the medical specialty codes, specialty boards, and specialty society codes was mailed. Unfortunately, the American Board of Internal Medicine (020) was inadvertently omitted from the specialty boards key and other typographical errors appeared on the page. A corrected key to these codes follows this newsletter. Please refer to this key when completing your green address verification form or when responding to questions about various specialty codes. Med Chi regrets any inconvenience caused by this error. If you have any questions or comments about the key or about the address verification forms, please contact Betsy Newman in the Public Relations Department at 301-539-0872 or 1-800-492-1056.

Physician Office Laboratory Regulations

Pursuant to the adoption of new physician office laboratory regulations in Maryland on August 6, 1990, the Department of Health and Mental Hygiene (DHMH) Laboratories Administration is requesting certain information from physicians. A "survey" will eventually be sent to all physicians who indicated on their last medical license renewal application that they performed any laboratory test. The survey requests physicians to indicate the director of the laboratory and to list all the physician members associated with the practice. The data obtained from the survey will form the basis for future questionnaires that the Laboratories Administration will be mailing to physicians. Physicians should respond as quickly and accurately as possible to all surveys.

In the survey, the Laboratories Administration is expected to request physicians to indicate which laboratory tests they perform. Although some physician laboratories will be exempted from certification because they perform certain tests, all laboratories will be required to complete an application form and submit an application fee.

Please contact Greg Hall in the Legal Department at 301-539-0872 or 1-800-492-1056 with any questions regarding the regulations or their implementation process.

Med Chi Compendium

Med Chi's *Compendium of Laws, Regulations, Opinions and Policies Governing the Practice of Medicine in Maryland* (1990 edition) is now available for all Med Chi members. An outstanding reference, the *Compendium* summarizes Maryland health laws and regulations, outlines a collection of Med Chi and AMA ethical standards, lists current Med Chi policies, and provides guidelines for physicians and codes of cooperation for medical professionals. For a free copy of the *Compendium*, contact Bernadette LaRue in Med Chi's Legal Dept. at 301-539-0872 or 1-800-492-1056.

DHMH Revises Voluntary and Involuntary Admission Forms

The Maryland Department of Health and Mental Hygiene (DHMH), in an August 1, 1990 memorandum, provided new forms to Med Chi and other interested parties related to the topics below. These forms were revised in March to reflect the requirements of applicable statutes. Please note that, by law, only these forms provided by DHMH may be used for the purposes indicated. The revised DHMH forms are:

1. Physician's Certificate to Accompany Application for Involuntary Admission;
2. Application for Voluntary Admission;
3. Application by Parent or Guardian for Admission of a Minor;
4. Notification to Individual of Admission Status and Rights; and
5. Application for Involuntary Admission.

If you would like to receive a copy of any of these forms, please contact Greg Hall in the Legal Department at 301-539-0872 or 1-800-492-1056.

Med Chi Handbook and Bylaws

Copies of the Med Chi *Handbook* for 1990-1991 and the May 1990 edition of Med Chi's *Bylaws* are now available for all members. The *Handbook* provides a listing of all Faculty officers, committee members, component medical societies and specialty societies. Committee member listings in this year's *Handbook* include a complete address and medical specialty codes. The *Bylaws* are a guide to the Faculty administration. For a free copy of either of these publications, contact Med Chi's Communications Department at 301-539-0872 or 1-800-492-1056.

Doctor/Lawyer Partnership Against Drugs

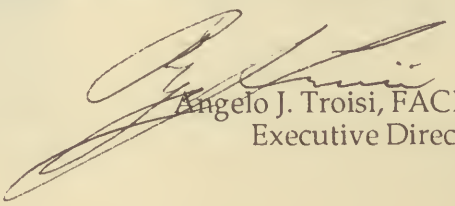
On September 25, 1990 Med Chi and the Maryland Bar Association held a press conference to announce its Doctor/Lawyer Partnership Against Drugs, a program that will bring doctor/lawyer education teams into schools to discourage 7th graders from using drugs. The program is essentially a "rap-session" where the physician will talk with students about the physical dangers of drug abuse while the lawyer will emphasize the legal consequences of using drugs. Physician volunteers are urgently needed to participate in this effort. For more information about how to become involved, contact your local component society or call Betsy Newman in the Public Relations Dept. at 301-539-0872 or 1-800-492-1056.

Homeless Shelter Project

The Extra Care Homeless Shelter Project is proposing to establish a 38-bed 24-hour convalescent shelter for physically ill homeless people. The facility will be located in a vacant former nursing home on Arunah Avenue in Baltimore. Skilled nursing will be provided by visiting nurses, and staff will provide counseling and advocacy as part of discharge planning. If you would like to contribute to the start-up funding or would like more information about the project, contact Susan P. Tippett, Committee Chairperson at 301-547-1121.

Maryland Access to Care Application

All physicians are encouraged to complete the application for the Maryland Access to Care (MAC) program that follows this newsletter. Under MAC, physicians will provide primary medical care to Medicaid recipients. Medicaid recipients will be required to choose a physician, provider group, or clinic to serve as their primary care provider. Recipients who fail to select a provider will be assigned one. If the recipient needs medical care, except in an emergency, he or she must call the primary care provider for an appointment or a referral to another source if appropriate. This change in the Medicaid program represents a commitment to shift care to community providers and, at the same time, increase fees for cognitive visits (by an average of 50%).



Angelo J. Troisi, FACHE
Executive Director

MEDICAL SPECIALTY CODES

ADL	Adolescent Medicine
AM	Aerospace Medicine
A	Allergy
AI	Allergy & Immunology
AN	Anesthesiology
BLB	Bloodbanking
BE	Broncho-Esophagology
CCM	Critical Care Medicine
CD	Cardiovascular Diseases
D	Dermatology
DLI	Diagnostic Laboratory Immunology
DMP	Dermatopathology
DIA	Diabetes
EM	Emergency Medicine
END	Endocrinology
FP	Family Practice
GE	Gastroenterology
GO	Gynecological Oncology
GP	General Practice
GPM	General Preventive Medicine
GER	Geriatrics
GYN	Gynecology
HEM	Hematology
HYP	Hypnosis
IG	Immunology
IP	Immunopathology
ID	Infectious Diseases
IM	Internal Medicine
LAR	Laryngology
LM	Legal Medicine
MFM	Maternal and Fetal Medicine
MM	Medical Microbiology
ND	Neoplastic Disease
NEP	Nephrology
N	Neurology
NPM	Neonatal-Perinatal Medicine
CHN	Neurology, Child
NA	Neuropathology
NM	Nuclear Medicine
NR	Nuclear Radiology
NTR	Nutrition
OBS	Obstetrics
OBG	Obstetrics and Gynecology
OM	Occupational Medicine
ON	Oncology
OPH	Ophthalmology
OT	Otology
OTO	Otolaryngology
ATP	Pathology, Anatomic
PTH	Pathology, Anatomic/Clinical
CLP	Pathology, Clinical
CMP	Pathology, Chemical
FOP	Pathology, Forensic
RIP	Pathology, Radioisotopic
PD	Pediatrics
PDA	Pediatric Allergy
PDC	Pediatric Cardiology
PDE	Pediatric Endocrinology
PHO	Pediatric Hematology-Oncology
PNP	Pediatric Nephrology
PDP	Pediatric Pulmonology
PA	Pharmacology, Clinical
PM	Phys. Medicine & Rehabilitation
P	Psychiatry
CHP	Psychiatry, Child
PYA	Psychoanalysis
PYM	Psychosomatic Medicine
PH	Public Health
PUD	Pulmonary Diseases
R	Radiology
DR	Radiology, Diagnostic
RO	Radiology, Oncology
PDR	Radiology, Pediatric
TR	Radiology, Therapeutic
REN	Reproductive Endocrinology
RHU	Rheumatology
RHI	Rhinology
ABS	Surgery, Abdominal
CDS	Surgery, Cardiovascular
CRS	Surgery, Colon and Rectal
FPS	Surgery, Facial Plastic/Otolaryngology
GS	Surgery, General
HS	Surgery, Hand
HNS	Surgery, Head and Neck
MFS	Surgery, Maxillofacial
NS	Surgery, Neurological
ORS	Surgery, Orthopaedic
PDS	Surgery, Pediatric
PS	Surgery, Plastic
TS	Surgery, Thoracic
TRS	Surgery, Traumatic
U	Surgery, Urological
VS	Surgery, Vascular

SPECIALTY BOARDS

003	Allergy & Immunology, American Board of
031	Diagnostic Laboratory Immunology
005	Anesthesiology, American Board of
051	Critical Care Medicine
010	Colon and Rectal Surgery, American Board of
015	Dermatology, American Board of
151	Dermatopathology
152	Dermatological Immunology/Diagnostic Laboratory Immunology
016	Emergency Medicine, American Board of
018	Family Practice, American Board of
020	Internal Medicine, American Board of
201	Cardiovascular Disease
211	Critical Care Medicine
202	Endocrinology & Metabolism
203	Gastroenterology
204	Hematology
205	Infectious Disease
206	Medical Oncology
207	Nephrology
208	Pulmonary Disease
209	Rheumatology
210	Allergy/Immunology
025	Neurological Surgery, American Board of
028	Nuclear Medicine, American Board of
030	Obstetrics and Gynecology, American Board of
301	Gynecologic Oncology
302	Maternal/Fetal Medicine
303	Reproductive Endrocrinology
035	Ophthalmology, American Board of
040	Orthopaedic Surgery, American Board of
045	Otolaryngology, American Board of
050	Pathology, American Board of
501	Blood Banking
502	Anatomic Pathology
503	Clinical Pathology
504	Anatomic/Clinical Pathology
505	Chemical Pathology
506	Dermatopathology
507	Forensic Pathology
508	Hematology
509	Immunopathology
510	Medical Microbiology
511	Neuropathology
512	Radioisotopic Pathology
055	Pediatrics, American Board of
557	Diagnostic Laboratory Immunology
551	Pediatric Cardiology
559	Pediatric Critical Care Medicine
552	Pediatric Endocrinology
553	Pediatric Hematology-Oncology
554	Pediatric Neonatal-Perinatal Medicine
555	Pediatric Nephrology
558	Pediatric Pulmonology
556	Pediatric Allergy/Immunology
060	Phys. Medicine & Rehabilitation, American Board of
065	Plastic Surgery, American Board of
070	Preventive Medicine, American Board of
701	Aerospace Medicine
702	Occupational Medicine
703	Public Health
704	Public Health/General Preventive Medicine
075	Psychiatry & Neurology, American Board of
751	Child & Adolescent Psychiatry
754	Neurology
752	Neurology w/Spec. Qual. in Child Neurology
753	Psychiatry
080	Radiology, American Board of
801	Diagnostic Radiology
802	Therapeutic Radiology
803	Nuclear Radiology
804	Radiation Oncology
085	Surgery, American Board of
851	General Vascular Surgery
852	Pediatric Surgery
090	Thoracic Surgery, American Board of
095	Urology, American Board of

SPECIALTY SOCIETY CODES

008	Academy of Psychoanalysis
012	Academy of Psychosomatic Medicine
024	Aerospace Medical Association
036	American Academy of Allergy
040	American Academy of Child Psychiatry
048	American Academy of Dermatology, Inc.
060	American Academy of Family Physicians
065	American Academy of Medical Directories
072	American Academy of Neurological Surgery
084	American Academy of Neurology
096	American Academy of Occupational Medicine
108	American Academy of Ophthalmology and Otolaryngology
115	American Academy of Ophthalmology
120	American Academy of Orthopaedic Surgeons
125	American Academy of Otolaryngology Head & Neck Surg., Inc.
132	American Academy of Pediatrics
144	American Academy of Physical Med. & Rehabilitation
150	American Assoc. for Clinical Immunology & Allergy
152	American Association for Clinical Urologists, Inc.
153	American Association of Cosmetic Surgeons (1977)
154	American Assoc. for the Study of Headache (1973)
156	American Association for the Study of Trauma
168	American Association for Thoracic Surgery
173	American Assoc. for the Study of Neoplastic Diseases
180	American Association of Genito-Urinary Surgeons
185	American Association of Medical Society Executives
192	American Assoc. of Obstetricians & Gynecologists
196	American Association of Ophthalmology
216	American Association of Plastic Surgeons
220	American Association of Public Health Physicians
225	American Association of Medical Specialists (BD Pension)
228	American Broncho-Esophagological Association
230	American Burn Association (1973)
240	American Clinical and Climatological Association
252	American College of Allergists
260	American College of Anesthesiologists
262	American College of Angiology
264	American College of Cardiology
276	American College of Chest Physicians
285	American College of Emergency Physicians (1973)
288	American College of Gastroenterology
289	American College of International Physicians
290	American College of Legal Medicine (1970)
295	American College of Medical Imaging
300	American College of Obstetricians and Gynecologists
312	American College of Physicians
318	American College of Preventive Medicine
320	American College of Psychiatrists
324	American College of Radiology
336	American College of Surgeons
340	American Council of Otolaryngology
348	American Dermatological Association
360	American Diabetes Association
365	American Electroencephalographic Society
369	American Fertility Society
372	American Fracture Association
384	American Gastroenterological Association
390	American Geriatrics Society, Inc.
396	American Gynecological Society
408	American Laryngological Association
420	American Lary., Rhin., and Otol. Society
423	American Medical Electroencephalographic Association
426	AMAPAC-AMA (Pension Purpose Only)
430	American Women's Medical Association
432	American Neurological Association
444	American Ophthalmological Society
456	American Orthopaedic Association
468	American Otological Society, Inc.
480	Amer. Academy of Facial, Plastic & Reconstructive Surg., Inc.
485	American Institute of Ultrasound in Medicine (1974)
490	American Medical Assurance Company
492	American Pediatric Society
495	American Physicians Fellowships, Inc.
504	American Society of Colon & Rectal Surgery
516	American Psychiatric Association
528	American Psychoanalytic Association
540	American Psychopathological Association
552	American Psychosomatic Society
564	American Radium Society
570	American Retired Physicians Association
576	American Rheumatism Association
588	American Roentgen Ray Society
589	American Socicty of Clinical Hypnosis
590	American Society of Clinical Oncology, Inc.
591	American Soc. for Aesthetic Plastic Surg., Inc. (1974)
600	American Society for Clinical Investigation
605	American Spinal Injury Association
606	American Society for Clinical Nutrition
612	American Association of Pathologists
615	American Soc. for Gastrointestinal Endoscopy (1971)
620	American Society for Head & Neck Surgery
624	American Society for Surgery of the Hand
630	American Society of Abdominal Surgeons
636	American Society of Anesthesiologists
638	American Society of Bariatric Physicians
648	American Society of Clinical Pathologists
649	American Soc. for Clinical Pharmacology & Therapeutics
650	American Society of Cytology
652	American Society of Hematology
654	American Society of Internal Medicine
655	American Society of Maxillofacial Surgeons
656	American Society of Nephrology
659	American Soc. of Ophthalmic Plastic & Reconstr. Surg., Inc.
660	Amer. Soc. of Ophthalmologic & Otolaryngologic Surgery, Inc.
672	American Society of Plastic & Reconstructive Surgery
675	American Society of Therapeutic Radiologists
684	American Surgical Association
696	American Thoracic Society
708	American Urological Association
715	Association of Bone and Joint Surgeons
720	Association of Military Surgeons of U.S.
744	Association of American Physicians
756	Association of Life Insurance Med. Directors of America
758	Association of State & Territorial Health Officers
760	Association of Teachers of Preventive Medicine
768	Central Assoc. of Obstetricians and Gynecologists
780	Central Neuropsychiatric Association
792	Central Society for Clinical Research
804	Central Surgical Association
816	Clinical Orthopaedic Society
828	College of American Pathologists
840	Congress of Neurological Surgeons
842	Contact Lens Association of Ophthalmologists, Inc.
844	Eastern Psychoanalytic Association
845	Fifth Year Club of American Medicine
852	The American Association of Neurological Surgeons
864	American Occupational Medical Association
868	Infectious Diseases Society of America
876	International Academy of Pathology
879	International Academy of Proctology
881	International Anesthesia Research Society
885	International Cardiovascular Society
888	International College of Surgeons
890	Int'l Soc./Advcmnt. of Humanist Study in Gynecology
900	International Society of Surgery-American Branch
902	Joint Council of Allergy & Immunology
904	Society of Surgical Oncology
907	Norman F. Miller Gynecologic Society
908	Plastic Surgery Research Council
909	Society for Adolescent Medicine
910	Society of Military Ophthalmologists (1971)
911	Society of Investigative Dermatology
912	Radiological Society of North America
913	Society of Medical Consultants to the Armed Forces
914	Society for Pediatric Radiology
915	Society for Surgery of the Alimentary Tract
916	Society of Critical Care Medicine
918	Society of Head & Neck Surgeons
920	Society of Nuclear Medicine
922	Society of Neurological Surgeons
923	Society of Teachers of Family Medicine
924	Society of University Surgeons
925	Society of Perinatal Obstetricians
926	Society for Gynecologic Investigation
927	Society of Gynecologic Oncology
928	Society of Reproductive Endocrinologists
929	Society of Reproductive Surgeons
936	Southeastern Surgical Association
948	Southern Surgical Association
949	The Association of Veteran's Administration Surgeons
950	The Society of Thoracic Surgeons
954	The Southwestern Surgical Congress
960	The Endocrine Society
970	University Assoc. for Emergency Medical Services
972	Western Surgical Association
980	Womens Auxilliary (AMA Pension Program Only)

MARYLAND MEDICAL ASSISTANCE PROGRAM
Primary Medical Provider Application/Agreement
Addendum to Provider Agreement

Name: _____ Provider #(for billing) _____

Billing Address: _____

_____

Contact Person: _____ Phone: _____

I am/this organization is enrolled as a provider with the Maryland Medical Assistance Program ("Program") and agree to provide medical services in the following practice field(s). (Check as many as apply and please list the number of physicians in each category.)

( ) General Practice #_____ ( ) Family Practice #_____

( ) Pediatrics #_____ ( ) Internal Medicine #_____

( ) Other: _____

I am/this organization is available to see recipients at the following locations at the indicated times:

#1 _____

_____

_____

Hours: _____

Phone: _____

Maximum enrollees at this site: _____

Ages at this site 0-12, 13-20, 0-20; Adults only; All ages

#2 _____

_____

_____

Hours: _____

Phone: _____

Maximum enrollees at this site: _____

Ages at this site 0-12, 13-20, 0-20; Adults only; All ages

#3 _____

_____

_____

Hours: _____

Phone: _____

Maximum enrollees at this site: _____

Ages at this site 0-12, 13-20, 0-20; Adults only; All ages

#4 _____

_____

_____

Hours: _____

Phone: _____

Maximum enrollees at this site: _____

Ages at this site 0-12, 13-20, 0-20; Adults only; All ages

( ) Please include my/our practice in Medicaid's Physician Referral Service.

( ) Check here if you only want patients who actively choose your practice.

Comments: _____

_____

_____

_____

(Continued on Reverse)

By signing this Addendum to the Provider Agreement, I agree to serve as a Primary Medical Provider (PMP) for the Maryland Medical Assistance Program. As a PMP, I agree to:

1. Provide comprehensive primary health care services to all eligible Medical Assistance recipients who choose or are assigned to my practice. I have the option of not taking assigned patients.
2. Maintain 24- hour/7 day-a-week availability through call arrangements or back-up coverage.
3. Refer recipients for specialty care, hospital care and other services when medically necessary and appropriate (at no financial risk to me or my practice). I understand that the duration of such a referral will be at my discretion, but will conform with standard medical practice and will be fully documented in the patient's medical record.
4. Authorize services provided by other providers if I determine those services to be medically necessary and appropriate. (Authorization can occur only if a PMP permits use of provider number on billing form of another provider.) Emergency services and certain other services identified by the Program will not require prior authorization.
5. Furnish services during a regular schedule of office hours, including a minimum of 20 hours per week on no fewer than three days of the week, unless otherwise agreed to by Medical Assistance.
6. Maintain a single patient record on each recipient and, for group practices or clinics, designate a single provider within the group as the principal provider for the recipient.
7. Notify the recipient of my intention to request his/her removal from my caseload prior to submitting the request to the Program. I will continue to provide treatment to the recipient until he/she is assigned to another PMP.
8. Provider or assure EPSDT/Health Kids services for patients under 21.
9. Furthermore, I will not request the removal of a recipient solely on the basis of the recipient's age, sex, creed, color, physical or mental handicap, marital status, national origin, sexual preference or type of illness or condition (except when the illness can be treated more effectively by another provider).

The Maryland Medical Assistance Program will:

1. Provide information regarding all PMP practices (as provided on the reverse side of this Addendum) to at least all eligible recipients in the PMP's zip code.
2. Pay increased fees to physicians reimbursed through the Physician Fee Schedule of the Program when this program is implemented.
3. Send periodic reports to PMP's that profile the utilization and cost of services provided to those linked with the practice.

The Program may terminate this Addendum if it is determined that the PMP has violated any provision of this Addendum, including providing or authorizing medically unnecessary or inappropriate care to a Program recipient.

Signed: _____ Date: _____
Primary Medical Provider

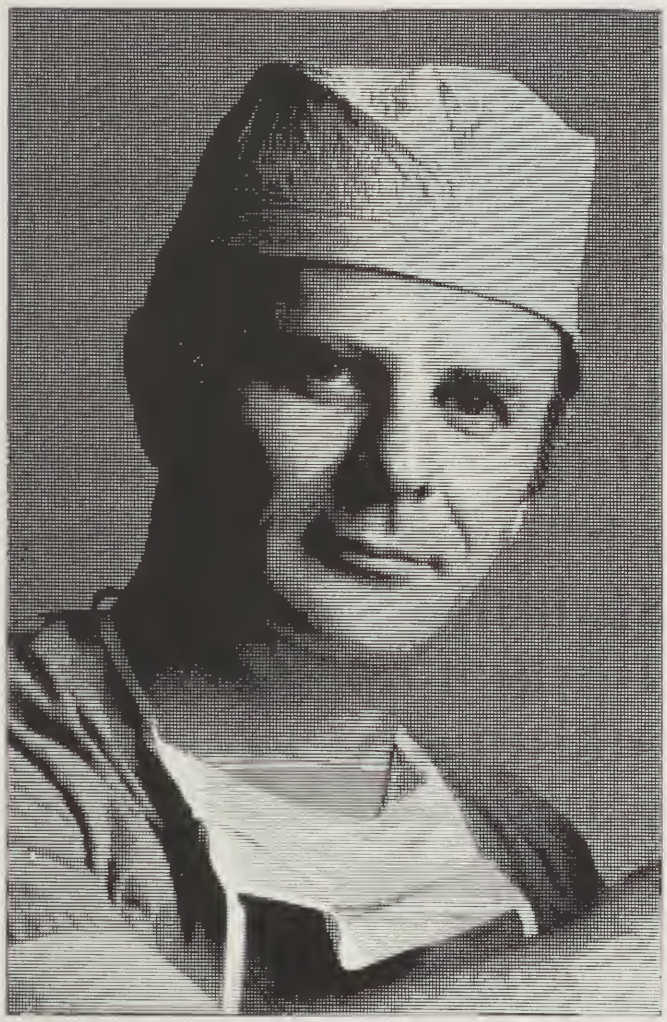
Signed: Joseph M Millstone Date: 8/1/90
Director, Medical Care Policy Administration

Signed: Ann D. Rosenberger Date: 8/1/90
Assistant Attorney General, State of Maryland

Mail completed form to:

Mr. Joseph Fine, Assistant Director
Division of Provider Services, Medical Care Operations Administration
Department of Health and Mental Hygiene
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Baltimore, MD 21201
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Greater Baltimore Medical Center: 25 Years of Medical Leadership

L. Myrton Gaines, Jr., MD

Dr. Gaines is the Chief of Staff at Greater Baltimore Medical Center.

The collection of articles in this issue of the *Maryland Medical Journal* are offered in recognition of the 25th Anniversary of the Greater Baltimore Medical Center (GBMC). Formed by the merger of two established downtown medical facilities, GBMC traces its roots to the Hospital for Women of Maryland, founded in 1885, and Presbyterian Eye, Ear, and Throat Charity Hospital founded in 1883.

These two specialty hospitals joined forces in 1965 to form the 400-bed Greater Baltimore Medical Center. GBMC has grown into a full-service community hospital providing a number of centers of excellence, as well as residency education programs in Internal Medicine, Obstetrics/Gynecology, Ophthalmology, and Otolaryngology.

Several articles address areas in which GBMC has consistently excelled. The Department of Otolaryngology - Head & Neck Surgery has a leadership position in Maryland which is exemplified by Dr. Loury's article on olfaction. Dr. Garcia, from our internationally acclaimed *in vitro* fertilization program, highlights our strength in women's health, fertility and reproductive endocrinology.

GBMC is also recognized for its Departments of Surgery, Anesthesiology, Internal Medicine, Ophthalmology, Pathology, and Diagnostic and Interventional Radiology. Dr. Prout's article on diabetes mellitus, Dr. Mersey's discussion of combination therapy, Dr. Haile's description of parvovirus and epidemic arthritis, and the review of cervical spine surgery by Dr. Murray et al are evidence of the quality work being performed in these departments.

In 25 years, GBMC has expanded to offer the highest level of healthcare, enabling it to attract some of the finest physicians, nurses and other clinical specialists in the country. As proud as we are of the past, it is the future which will determine the leaders in the medical field. GBMC's future plans include the expansion of its oncology services into a community cancer center. Dr. Cohen's article addresses the community hospital's role in cancer research. Drs. Brookland and Blumberg's article on radiation therapy for breast cancer represents the fine work that can be accomplished in this setting.

GBMC invites you to join us in our quarter of a century celebration by reading this issue of the *Maryland Medical Journal*, written by our physicians about the exciting work they are doing. We are very proud to be an integral part of medicine in Baltimore today. ■

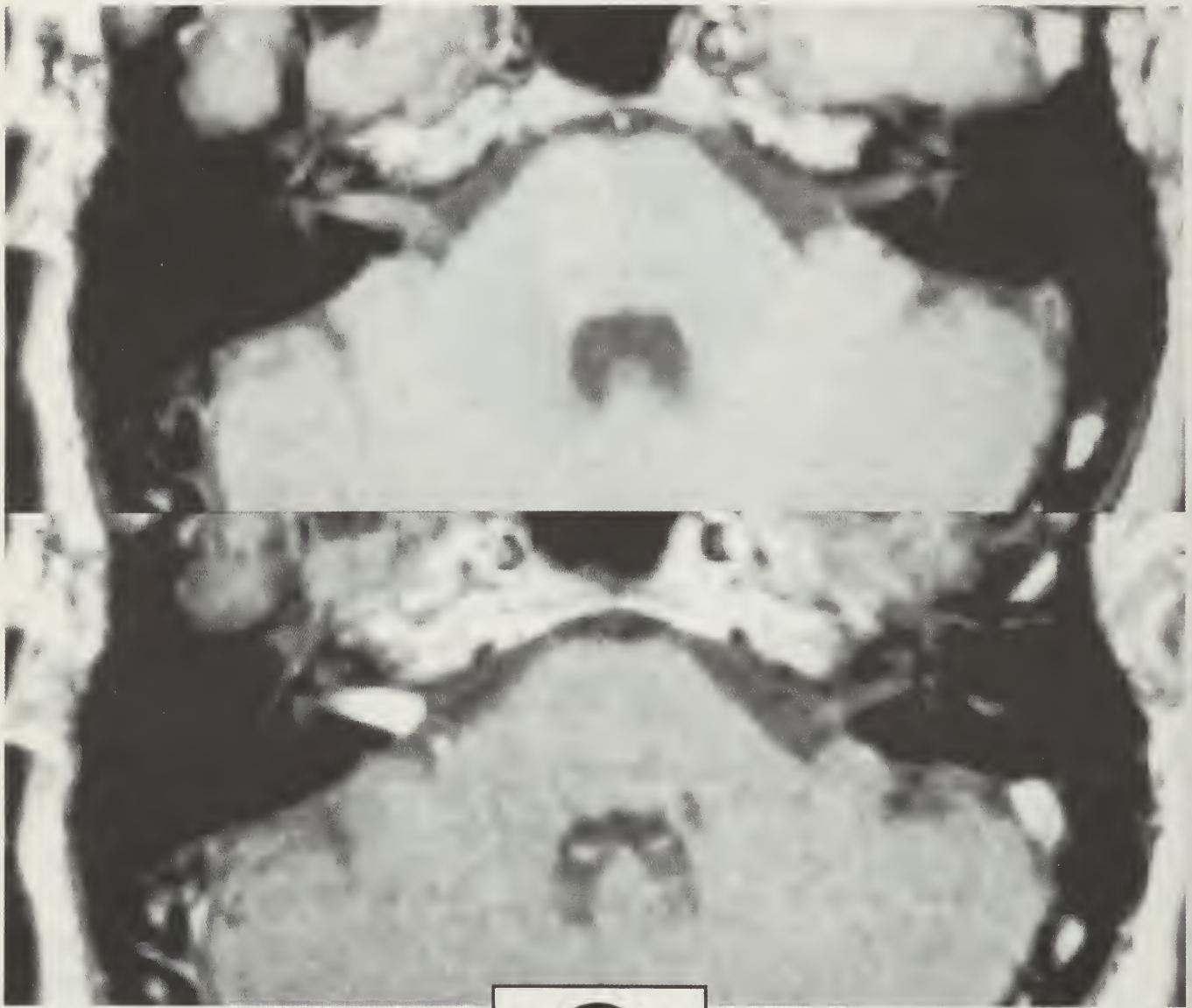
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Case #11

45 year old male complained of hearing loss in the right ear along with occasional headaches and dizziness.

Diagnosis: ACOUSTIC NEUROMA (Schwannoma of the 8th cranial nerve)

Note the asymmetric enlargement of the 8th nerve affecting the intracanalicular portion of the nerve on these T1 axial images. Most acoustics are readily detected by MRI; however, contrast administration (Gadolinium-DTPA) markedly shortens the T1 of the tumor, increasing its conspicuity (especially with small lesions) and easily delineating the lateral extent of the tumor in the canal. MRI is the scanning procedure of choice for detection of small lesions. Further sensitivity is attained with use of GD-DTPA.



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Current Concepts in Olfaction

Mark C. Loury MD

Dr. Loury is the Director of Geriatric Otolaryngology, Head and Neck Surgery, Greater Baltimore Medical Center.

Because of the location of the olfactory epithelium and bulb, the processes involved in olfaction have been difficult to evaluate. However, the recent application of comprehensive nasal endoscopy, reproducible olfactory testing, and molecular biologic techniques to the study of the transduction of olfactory information has elucidated some of the events in odorant perception.

Olfaction has been largely neglected for two reasons: The deficits associated with anosmia do not interfere with autonomous functioning to the degree seen with vision or hearing loss; and it has remained largely inaccessible because of its remote position in the superior nasal vault and anterior cranial fossa. Olfactory dysfunction, however, can impair flavor appreciation and potentially induce a state of chronic malnutrition. More importantly, a disturbance in olfactory sensation may affect the perception of danger situations which have olfactory cues, such as spoiled food, methane gas leaks, and fire.

A patient presenting with an olfactory complaint often poses a diagnostic and therapeutic challenge. Part of the difficulty lies in the myriad of etiologies of olfactory dysfunction. Another factor has been the lack of standardized testing and reporting procedures to quantify and qualify olfactory loss. Finally, a lack of basic science research into the molecular processes involved in olfactory transduction has hindered the development of rational pharmacological interventions. Fortunately, each one of these areas has recently been the focus of more intense investigation so that a more coherent concept of the olfactory process now exists.

The otolaryngologist, head and neck surgeon, occupies the pivotal role in the diagnosis and treatment of olfactory loss. No other specialty concentrates on the management of sinonasal disorders, many of which impair the sense of smell. Indeed, the most common cause of olfactory dysfunction is inflammatory disease in the sinonasal tract.[1] Since most of these illnesses are medically or surgically treatable, patients with secondary olfactory loss can often be successfully managed.

National Center for Health Statistics data reveal that over 30 million people, or about 13.5 percent of the population, suffer from chronic sinusitis. Interestingly, chronic sinusitis is the most common chronic illness, defined as any disease persisting for more than three months.[2] Nasal polyposis affects another 9 percent of the population. On a preoperative questionnaire, 30 percent of individuals with radiographic and endoscopic evidence of chronic sinusitis had a subjective olfactory loss (D. Kennedy, personal

communication). All patients with diffuse nasal polyps have a complaint of olfactory dysfunction. Therefore, over 10 million people have hyposmia/anosmia which is potentially treatable by either medical or surgical management of the underlying inflammatory process. These numbers are probably underestimates because 1) underreporting is seen by these survey techniques and 2) significant changes in odorant threshold must occur before the diminished odorant perception becomes symptomatic.

Evaluation

Many disorders and drugs are associated with olfactory dysfunction. Scott[3] has identified more than 200 medical disorders and over 40 medications associated with olfactory loss. She lists congenital, endocrine, iatrogenic, infectious, hepatic, neurologic, psychiatric, and local abnormalities. Numerous industrial chemicals[3] and medications[4] are also known to precipitate olfactory dysfunction.

Fortunately, the etiology of most patients' olfactory loss falls into only a few categories. The most common cause of olfactory dysfunction is sinonasal tract inflammation, accounting for thirty percent of the 600 dysosmic patients presenting to the Connecticut Chemosensory Clinical Research Center.[3,5] Classically, the loss of smell associated with sinonasal tract inflammation fluctuates, improving or worsening depending on the acquiescence or escalation of the disorder, respectively. When the underlying process abates spontaneously or by treatment, olfaction improves. A short oral course of steroids associated with a concomitant, documentable improvement in olfactory testing strongly suggests underlying sinusitis.[1,6] The presence of severe nasal obstruction beginning in infancy which is not resolved, may lead to permanent anosmia.[7] It is hypothesized that the development of the olfactory pathways requires olfactory input during a yet undefined critical period.

The second most common cause of olfactory loss is a result of an upper respiratory tract infection (URI) and accounts for about 15 percent of patients. It is diagnosed when no other cause of dysosmia can be identified and when temporally related to a URI.[3] The next most common cause of dysosmia is head trauma (about 10 percent), occuring in 4-5 percent of all patients incurring head injury.[8,9] Regrettably, no effective therapy exists for individuals suffering from olfactory loss caused by either head trauma or URI. These individuals may benefit from the addition of flavor enhancers (which are actually concentrated odorants) to their food in the hope of stimulating any residual olfactory reserve. Oral intake and nutritional status have actually improved when this approach has been tried.[10]

Because of the many etiologies of olfactory dysfunction, a thorough history is required. The onset of the loss and its relationship to underlying medical illnesses, trauma, institution of new medications, infectious upper respiratory tract disease, inflammatory rhinosinusitis, environmental exposure, etc. must be clarified. After determining the history, further evaluation requires a complete examination of the head and neck, focusing particularly upon the sinonasal tract. Comprehensive intranasal endoscopic diagnosis using rigid endoscopes has greatly improved this aspect of the evaluation. Not only are subtle changes in the osteomeatal complex associated with chronic sinusitis more clearly identified, but anatomic abnormalities of the middle meatus which predispose the development of chronic sinusitis can also be seen.[11-16] Because of the excellent illumination and deflected angles of view, the superior nasal vault can be thoroughly examined. High septal deflections and superior meatal nasal polyps which prevent odorant access to the olfactory epithelium can be identified. Anterior rhinoscopy is totally inadequate in this regard. When computed tomographic examination is performed for chronic sinusitis, there is excellent delineation of the superior nasal vault, olfactory groove, and cribriform plate (Figure 1). Space-occupying olfactory groove lesions can also be seen.

The examination is concluded by olfactory threshold and odorant discrimination testing. Graded dilutions of various substances have been successfully used, including 1-butanol,[1] pyridine, thiophene, and phenethyl alcohol.[17] Monorhinic thresholds are determined in a forced-choice procedure using graded dilutions of the odorant compared to diluent alone as the blank. Trigeminal stimulants are employed for suspected cases of malingering. Odorant discrimination testing can use either microencapsulated fragrances[18] or coded containers containing common fragrant sub-



Figure 1. Coronal CT scan demonstrating medialized middle turbinate contacting nasal septum. Access to olfactory epithelium obstructed. (■) - cribriform plate.

stances including mixed trigeminal-olfactory stimulants.[1] The participant is provided with a closed list of choices including both the names of the tested substances and an equal number of names of substances which are not presented to the patient.

In spite of more accurate reproducible testing and other diagnostic advances, 40 to 45 percent of patients still have olfactory dysfunction of undetermined cause. Recent advances in the understanding of olfaction at the molecular level offer the greatest hope for the diagnosis and treatment of these individuals.

Olfactory Transduction

The olfactory system is unique in that the receptor neurons are directly exposed to the environment. Therefore, alterations in the intranasal milieu can potentially influence odorant perception. This concept is most simply illustrated by complete nasal obstruction where there is no odorant delivery to the olfactory epithelium. It has been conjectured that the olfactory loss seen in inflammatory sinonasal tract disease is a result of an interplay between the observed obstruction and alterations in the mucus blanket. Important events which ultimately affect the interaction between an odorant molecule and a specific receptor on the olfactory neuron are termed perireceptor events.[19] These perireceptor events include odorant delivery to the nasal cavity, dissolution of the odorant into the mucus layer which bathes the olfactory cilia, and odorant clearance.

Most odorant molecules are hydrophobic and require volatilization. To interact with the olfactory neuron cilia, an odorant must enter the nasal cavity and become dissolved in the mucus in a high enough concentration to exceed the detection threshold. Mucus consists of more than 95 percent water and contains polysaccharides with high charge densities. It owes its hypertonicity, in part, to the active secretion of chloride ions by the nasal glands.[20] Partition coefficients of odorants favor solubilization into more charge-neutral, hydrophobic environments.[21] Any increase in the volume of secretions by inflammatory or neurogenic processes effectively dilutes the concentration of odorant with a concomitant elevation in threshold. Similarly, any increase in the relative concentration of mucopolysaccharides may inhibit odorant partitioning into this more hydrophilic environment. Mucus from patients with chronic sinusitis is more viscous, which decreases its mucociliary clearance.[22] This increase in viscosity is due to an increase in mucopolysaccharides.

Olfaction is remarkably sensitive, able to detect thresholds ranging from 10^{-9} to 10^{-11} molar.[23] However, electrophysiologic responses of olfactory neurons indicate that only 50 percent neuron activation occurs at micromolar concentrations.[24,25] Therefore, there is a thousand-fold difference in the concentration required to elicit a behavioral response compared to a neuron action potential. It is hypothesized that there is differential partitioning of the odorant so that its concentration in the mucus blanket is actually greater than that predicted by its partition coefficient. A possible candidate for this role is odorant binding protein (OBP), a recently purified soluble protein secreted by nasal glands. OBP has been identified in both rat and cow, binds a wide range of odorants from many different chemical classes, represents about 1 percent of all intranasal proteins, and is restricted to the nose.[26-28] It exists as a dimer and may manifest negative cooperativity, i.e., it will bind a single odorant for a prolonged period of time but rapidly releases it when another odorant is presented.[21] Alternatively, OBP may help in the clearance of odorants from the olfactory receptors so that other odiferous substances may interact with them.

Odorant clearance may also be facilitated by an olfactory-specific cytochrome P-450 which has recently been cloned and is localized to olfactory epithelium. It probably resides in the membrane of the endoplasmic reticulum. Many mRNA copies of the phenobarbital-inducible cytochrome P-450b are also present in olfactory epithelium. This cytochrome is not constitutively expressed in the liver and appears after phenobarbital challenge.[29] It is not known if this P-450b expression in the olfactory epithelium is constitutive, or if it has been induced by environmental substances. Olfactory epithelium actively metabolizes many compounds including odorants.[30] Nef[29] conjectures that these cytochromes hydroxylate odorants and other substances to turn off the olfactory signal. Degradatory enzymes for extracellular signals are crucial for mate localization in moths[31] and may account for crustaceans' rapid detection of small concentration changes in amino acid concentrations in the external environment.[32] Alternatively, hydroxylation may make some odorants more potent and actually enhance their binding to odorant receptors. Certain environmental and ingestible substances, e.g., ethanol or phenobarbital, may induce the synthesis of other cytochrome enzymes. By increasing the rate of odorant clearance, hyposmia or anosmia may result. This proposed sequence of events may account for some of the observed medication- and chemical-induced declines in odorant perception.

These perireceptor events of odorant delivery, partitioning, and clearance, all precede or follow binding of the odorant molecule to the receptor. Several lines of evidence indicate the presence of membrane-bound receptors. First, the ability to discriminate hundreds of odorants implies a specific interaction between an odorant ligand and a receptor instead of a nonspecific interaction such as neuronal membrane perturbations induced by intercalation of the hydrophobic molecule into the neuronal plasmalemma. Second, the observed detection of substances in the ratio of one part per billion[21,23] strongly implicate a specific ligand-receptor phenomenon. Third, stereoisomers such as L- and D- carvone are perceived differently. Stereoselective differences in perception suggest distinct receptors.

Odorant receptors are localized to the olfactory neuronal cilia. Potential candidates for these receptors include glycoproteins[33,34] and other membrane proteins.[35] Antibodies to these putative receptors are capable of diminishing electro-olfactogram responses. However, no binding of tritiated odorants to specific receptors on olfactory epithelium has yet been demonstrated.[28]

The odorant-receptor complex initiates a cascade of reactions which ultimately generate an action potential. Olfactory epithelium has high levels of basal adenylate cyclase activity which synthesizes cyclic adenosine monophosphate (cAMP).[36-38] This activity can be stimulated by guanosine triphosphate (GTP). When 100 micromolar concentrations of odorants are added to olfactory ciliary preparations, adenylate cyclase activity increases. Putrid odorants and chemical solvents have little stimulatory activity.[38] Also, GTP-activated phosphoinositide (PI) turnover is present in olfactory tissue.[39] Both the adenylate cyclase and phosphoinositide systems generate intracellular second messengers via guanine nucleotide binding proteins (G-proteins).[40]

G-proteins consist of three subunits (Figure 2). The alpha subunit interacts with the receptor and in its normal unactivated state binds guanosine diphosphate (GDP) and is associated with both beta and gamma subunits. The alpha subunits can either be stimulatory or inhibitory, and show some tissue specificity, e.g., retinal G-alpha (transducin). The olfactory epithelium has a tissue specific G-alpha that stimulates cAMP formation[41] (Figure 3). The beta-gamma heterodimer can interact with various alpha proteins. When the ligand binds the receptor which itself is associated with the trimer, the GDP is replaced by GTP with dissociation of the beta-gamma subunits. The GTP-activated alpha subunit then activates many copies of adenylate cyclase (the effector) which generates cAMP. After the cAMP activates protein kinase (PK), it is degraded by phosphodiesterase (PDE). The active PK phosphorylates ion channels causing an influx of cations with the generation of an action potential. Cyclic AMP may activate the channel directly.[42] The inherent GTP-ase activity of the alpha subunit creates GDP which inactivates the cascade, whereupon the alpha subunit releases the effector and rebinds to the beta-gamma complex. The cAMP signal can be enhanced and prolonged by the addition of caffeine or theophylline which inhibit the action of PDE.[43]

The PI system also consists of a receptor that interacts with a G-protein (Figure 4). However, the effector enzyme is a phospholipase C which cleaves phosphatidylinositol bisphosphate (PIP2) into diacylglycerol (DAG) and inositoltriphosphate (IP3). The DAG remains in the membrane and activates protein kinase C (PKC) which proceeds to activate by phos-

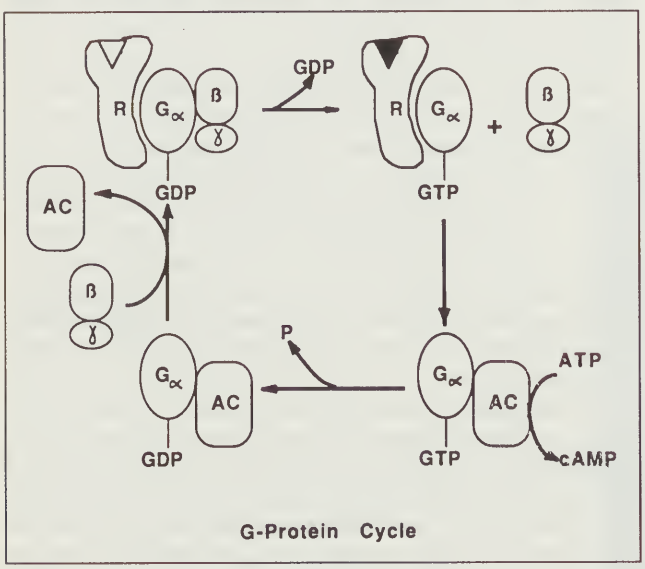


Figure 2. G-PROTEIN CYCLE Sequence begins in upper left. Unstimulated complex consists of receptor with open binding site and guanosine diphosphate (GDP) bound to G ∝ subunit of G protein heterotrimer. Binding of odorant (▼) to receptor (R) initiates exchange of GDP for guanosine triphosphate (GTP) with release of $\beta\gamma$ complex. This activated G∝ -GTP moiety then activates numerous effector proteins; in this illustration, adenylate cyclase (AC). The AC generates the second messenger cAMP from ATP. An inherent GTP-ase in the G∝ subunit cleaves a phosphate (P) off of GTP, forming GDP which deactivates G∝. AC stimulation ceases. G-GDP then reassociates with the $\beta\gamma$ complex.

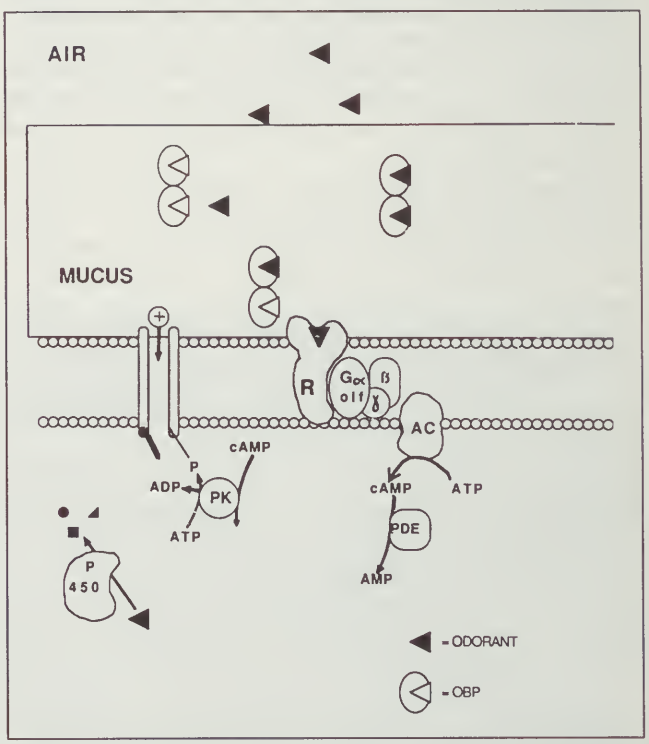


Figure 3. OLFACTORY TRANSDUCTION VIA ADENYLATE CYCLASE PATHWAY. Perireceptor events include odorant partitioning in mucus layer and binding to OBP (▼); cyclic adenosine monophosphate (cAMP) activation of protein kinase (PK) which phosphorylates (P) an ion channel using adenosine triphosphate (ATP); cytochrome (P-450) degradation of odorant; and deactivation of cAMP by phosphodiesterase (PDE) hydrolysis with the formation of adenosine monophosphate (AMP). Receptor events include odorant binding to receptor (R) and G-Protein ($G^{\alpha}_{olf}, \beta, \gamma$) activation of adenylate cyclase (AC). AC forms cAMP from adenosine triphosphate (ATP). (•, ■, ▼) - odorant metabolites, + - cation.

phorylation, various intracellular proteins. The IP3 that is released intracellularly opens a calcium channel in the endoplasmic reticulum, thereby releasing calcium.

Conclusion

An accurate determination of the etiology of olfactory loss is the most important step in deciding which interventions to use. Treatment of any underlying medical illness, e.g., hypothyroidism, is necessary. In those individuals with inflammatory or infectious disease of the sinonasal tract, aggressive medical treatment is begun. For those individuals with an atopic illness, options include avoidance of the antigen, oral antihistamines, topical and systemic steroids, decongestants, and desensitization. Symptomatic improvement should be correlated subjectively and objectively with improved olfactory function. For the patient with chronic sinusitis, steroids, decongestants, and antibiotics are the mainstays of medical management. Surgery is reserved for those people with persistent or frequently recurrent symptoms. Restoration of aeration and physiologic routes of drainage are the goals of surgery. Any structural impediment to the free flow of air by either septal deviations, refractory hyperplastic mucosa, and/or nasal polyposis requires operative intervention.

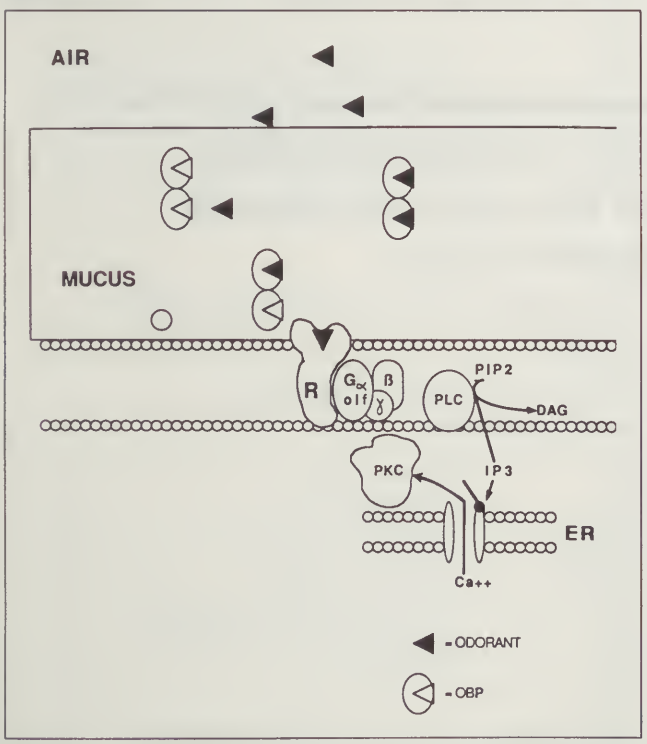


Figure 4. OLFACTORY TRANSDUCTION VIA PHOSPHOINOSITIDE PATHWAY. Odorant binding to receptor (R) activates G-protein (G_{olf}, β, γ). Activated G_{olf} activates phospholipase C (PLC) which cleaves phosphotidylinositol bisphosphate (PIP2) into diacylglycerol (DAG) and inositol triphosphate (IP3). IP3 opens a calcium channel on the endoplasmic reticulum (ER) with release of stored calcium (Ca++) into the cell. Calcium then activates protein kinase C (PKC) which then phosphorylates intracellular proteins and induces their activity.

For those patients suffering from irreversible olfactory loss, the options are fewer. Flavor enhancers may be useful. Since the hedonic value of food is diminished by hyposmia or anosmia, other strategies may be employed to make food more appealing. Variety in food appearance, texture, and type, appeal to other senses that participate in the enjoyment of eating. A trial of theophylline or aminophylline may prove helpful. For those people who are anosmic, smoke detectors are mandatory. Family members should become involved in food preparation to sense food spoilage. As receptor and second messenger systems become better understood, rational pharmacologic manipulations of the olfactory transduction sequence might be feasible.

References

1. Cain WS, Gent JF, Goodspeed RB et al. Evaluation of olfactory dysfunction in the Connecticut chemosensory clinical research center. Laryngoscope 1988;98:83-88.
2. Collins JG. Prevalence of selected chronic conditions, United States, 1983-1985, No. 155. Hyattsville, MD: National Center for Health Statistics, May 24, 1988.
3. Scott AE. Characterization of taste and smell disorders. Ear Nose Throat J 1989;68(4):297-315.
4. Schiffman SS. Taste and smell in disease. N Engl J Med 1983;308:1275-1279, 1337-1343.
5. Goodspeed RB, Gent JF, Catalanotto FA. Chemosensory dysfunction: Clinical evaluation results from a taste and smell clinic. Postgrad Med J 1987;81:251-260.
6. Jafek BW, Moran DT, Eller PM. Steroid-dependent anosmia. Arch Otolaryngol Head Neck Surg 1987;113:547-549.
7. Gross-Isseroff R, Ophir D, Marshak G et al. Olfactory function following late repair of choanal atresia. Laryngoscope 1989;99:1165-1166.
8. Costanzo RM, Becker DP. Smell and taste disorders in head injury and neurosurgery patients. In: Clinical Measurement of Taste and Smell. Meiselman HL, Rivlin RS, eds. New York: Macmillan Publishing Co. 1986;565-578.
9. Zusho H. Posttraumatic anosmia. Arch Otolaryngol Head Neck Surg 1982;108:90-92.
10. Schiffman SS, Warwick ZS. Flavor enhancement of foods for the elderly can reverse anorexia. Neurobiol Aging 1988;9:24-26.
11. Kennedy DW, Zinreich JS, Loury MC. The functional endoscopic approach to sinusitis. In Otolaryngology. English G, ed. Philadelphia: JP Lippincott 1990.
12. Kennedy DW, Zinreich SJ, Rosenbaum AE et al. Functional endoscopic sinus surgery: Theory and diagnostic evaluation. Arch Otolaryngol Head Neck Surg 1985;111:576-582.
13. Messerklinger W. Uber die drainage der menschlichen nasennebenhohlen unter normalen and pathologischen bendingungen. In Ohrenheilkunde und Laryngo-Rhinologie. Messerklinger W, ed. Vienna: Urpan & Schwarzenberg 1966;56-66.
14. Messerklinger W. Uber die drainage der menschlichen nasennebenhohlen unter normalen and pathologischen bendingungen: II. Mitteilung: die stirnhohle und ihr ausfuhrungssystem. Monatsschr Ohrenheilkd 1967;101:313-326.
15. Stammberger H. Endoscopic endonasal surgery - Concepts in treatment of recurring rhinosinusitis, Part I: Anatomic and pathophysiologic considerations. Otolaryngol Head Neck Surg 1986;94(2):147.
16. Stammberger H. Endoscopic endonasal surgery - Concepts in treatment of recurring rhinosinusitis, Part II: Surgical techniques. Otolarynol Head Neck Surg 1986;94:147-156.
17. Perry JD, Frisch S, Jafek B et al. Olfactory detection thresholds using pyridine, thiophine, and phenylethyl alcohol. Otolaryngol Head Neck Surg 1988;88:778-782.
18. Doty RL, Shaman P, Dann M. Development of the University of Pennsylvania smell identification test: A standardized microencapsuled test of olfactory function. Phys Behav 1984;32:489-502.

19. Getchell TV, Margolis FL, Getchell ML. Perireceptor and receptor events in vertebrate olfaction. Prog Neurobiol 1984;23:317-345.
20. Nadel JA, Davis B, Phipps RJ. Control of mucus secretion and ion transport in airways. Ann Rev Physiol 1979;41:369-381.
21. Pevsner J, Hou V, Snowman AM et al. Odorant-binding protein: Characterization of ligand binding. J Biol Chem submitted.
22. Majima Y, Inagaki M, Hirata K et al. The effect of an orally administered proteolytic enzyme on the elasticity and viscosity of nasal mucus. Arch Otorhinolaryngol 1988;244:355-359.
23. Patte F, Etcheto M, Laffort P. Selected and standardized values of suprathreshold odor intensities for 110 substances. Chem Sense Flavor 1975;1:283-305.
24. Senf W, Menco BPM, Punter PH et al. Determination of odor affinities based on the dose-response relationship of the frog's electro-olfactogram. Experentia 1980;36:213-215.
25. Kashiwayanagi M, Kuhara K. Neuroblastoma cell as a model for olfactory cell: Mechanism of depolarization in response to various odorants. Brain Res 1984;293:251-258.
26. Pevsner J, Trifiletti RR, Strittmatter SM et al. Isolation and characterization of an olfactory receptor protein for odorant pyrazines. Proc Natl Acad Sci USA 1985;82:3050-3054.
27. Pevsner J, Sklar P, Snyder S. Odorant-binding protein: Localization to nasal glands and secretions. Proc Natl Acad Sci USA 1986;83:4942-4946.
28. Pevsner J, Hwang PM, Sklar PB et al. Odorant binding protein and its mRNA are localized to lateral nasal gland implying a carrier function. Proc Natl Acad Sci USA 1988;85:2383-2387.
29. Nef P, Heldman J, Lazard D et al. Olfactory-specific cytochrome P-450; cDNA cloning of a novel neuroepithelial enzyme possibly involved in chemoreception. J Biol Chem 1989;264:1-6.
30. Dahl A, Hadley W. Formaldehyde production promoted by rat nasal cytochrome P-450-dependent monoxygenases with nasal decongestants, essences, solvents, air pollution, nicotine, and cocaine as substrates. Toxicol Appl Pharmacol 1983;67:200-205.
31. Vogt RG, Riddiford LM, Prestwich GD. Kinetic properties of a sex pheromone-degrading enzyme: The sensillar esterase of *Antheraea polyphemus*. PNAS 1985;82:8827-8831.
32. Schmitt BC, Ache BW. Olfaction: Responses of a decapod crustacean are enhanced by flicking. Science 1979;205:204-206.
33. Fenscnko EE, Novoselov VI, Bystrova MF. Properties of odor-binding proteins from rat olfactory epithelium. Biochem Biophys Acta 1988;937:369-378.
34. Chen Z, Pace U, Ronen D et al. Polypeptide gp95: A unique glycoprotein of olfactory cilia with transmembrane receptor properties. J Biol Chem 1986;261:1299-1305.
35. Price S, Wiley A. Benzaldehyde binding protein from dog olfactory epithelium. Ann NY Acad Sci 1987;510:561-564.
36. Lancet D, Chen Z, Ciobotariu A et al. Toward a comprehensive molecular analysis of olfactory transduction. Ann NY Acad Sci 1987;510:27-32.
37. Pace U, Hansky E, Salomon Y et al. Odorant sensitive adenylate cyclase may mediate olfactory reception. Nature 1985;316:255-258.
38. Sklar PB, Anholt RH, Snyder SH. The odorant sensitive adenylate cyclase of olfactory receptor cells: Differential stimulation by distinct classes of odorants. J Biol Chem 1986;261:15538-15543.
39. Huque T, Bruch RC. Odorant- and guanine nucleotide-stimulated phosphoinositide turnover in olfactory cilia. Biochem Biophys Res Commun 1986;137:37-42.
40. Gilman A. G proteins: Transducers of receptor-generated signals. Annu Rev Biochem 1987;56:615-649.
41. Jones D, Reed RR. Golf: An olfactory neuron specific G-protein involved in odorant signal transduction. Science 1989;244:790-795.
42. Nakamura T, Gold GH. A cyclic nucleotide-gated conductance in olfactory receptor cilia. Nature, 1987;325:442-444.
43. Menevse A, Dodd G, Poynder TM. Evidence for the specific involvement of cAMP in the olfactory transduction. Biochem Biophys Res Commun 1977;77:671-677.

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The In Vitro Fertilization Program at the Greater Baltimore Medical Center

Jairo E. Garcia MD

Dr. Garcia is the Director of the Women's Hospital Fertility Center and IVF Program at Greater Baltimore Medical Center.

During its six years of existence, GBMC's IVF program has achieved a 23 percent "take home baby" rate per cycle with embryo transfer.

Louise Brown was the first human conceived and delivered after a successful in vitro fertilization and embryo transfer (IVF-ET) pregnancy.[1] The success achieved by Steptoe and Edwards in July 1978 in England was followed by that of the Australians in 1980. Those pregnancies were achieved after the aspiration of one oocyte from a natural menstrual cycle. In 1981, the Norfolk Program succeeded only after inducing ovulation with human menopausal gonadotropins (hMG) and human chorionic gonadotropin (hCG). In 1986, the IVF Program at the Greater Baltimore Medical Center (GBMC) reported the first baby delivered in the United States from a natural oocyte fertilized in vitro.

The groundwork for the IVF Program at GBMC was laid in 1983 by the combined efforts of the Department of Gynecology under the chairmanship of Dr. James H. Dorsey, and the Department of Pathology under the chairmanship of Dr. John E. Adams, with the moral and financial support of the GBMC Administration under the leadership of Mrs. Sheila Riggs. To encompass all aspects of infertility management, including IVF, the Women's Hospital Fertility Center was established in 1983 under the direction of Dr. Theodore A. Baramki, head of the Division of Reproductive Endocrinology. Dr. Frederick G. Weinstein was appointed director of the IVF Program in July 1984. The first oocyte retrieval took place in September 1984 and the first IVF baby was delivered in the summer of 1985.

In July 1985, I joined GBMC as the Director of the Women's Hospital Fertility Center. Since then, our IVF Program has experienced tremendous growth and success, and is considered one of the largest IVF programs in the United States and in the world.

The IVF program at GBMC has participated in the implementation of several IVF technologies, evolving according to the patients' needs. It has also expanded the IVF concept to other assisted reproductive procedures such as gamete intrafallopian transfer (GIFT), zygote intrafallopian transfer (ZIFT), embryo cryopreservation, donor oocyte, and gamete micromanipulation.

Patient Selection

Originally, IVF was indicated for patients with absent or irreparable fallopian tubes (previous salpingectomies for ectopic pregnancies, pelvic inflammatory disease, failed tuboplasty, or tubal reanastomosis). Nowadays, the indication for IVF/ET has broadened to include other fertility problems: endometriosis refractory to medical or surgical treatment; Diethylstilbestrol (DES) exposure in utero; severe cervical factor with unsuccessful intrauterine inseminations; male factor, such as severe oligospermia, asthenospermia, and immunologic factors (sperm antibodies); and five years of unexplained infertility (normal infertile couple, NIC) (Table 1).

A complete infertility workup is imperative in all patients. It is desirable to have general good health, a normal endometrial cavity (with the exception of DES patients), preferably regular menstrual cycles, a normal endometrial biopsy, negative cervical cultures (chlamydia, ureaplasma urealyticum), and adequate numbers of sperm (>1.5 million recovery after sperm wash). Accessibility of the ovaries through laparoscopy is no longer a prerequisite, since 97 percent of oocyte retrievals are done transvaginally under ultrasound guidance.

To be admitted into this program the patient has to be under the age of 40. Although the pregnancy rate per embryo transfer remains almost constant until the age of 44, the ongoing pregnancy rate decreases significantly after the age of 40 due to an increase in the miscarriage rate.[2]

In our IVF/ET program, we do not limit the number of oocyte retrieval attempts because, in our experience, the pregnancy rate per attempt and per embryo transfer remains constant regardless of the number of cycles with oocyte retrieval.[2] Furthermore, 33 percent of our patients have already undergone IVF/ET at other institutions.

Ovarian Hyperstimulation and Monitoring

The first IVF pregnancies resulted from oocytes retrieved during the natural, or spontaneous, cycle. In 1981, the Norfolk program decided to use hMG/hCG to stimulate multiple follicle development;[3,4] at the same time, the Australians decided to use clomiphene citrate (CC). During the past decade, multiple protocols for ovarian hyperstimulation have been reported; all of them have been successful but there are variations that make some of them more appealing to a particular IVF center. In our opinion, all IVF centers must be familiar with all the different kinds of protocols. It should be emphasized that there are differences in the monitoring, for example, follicle diameter, estradiol (E_2) levels, duration of stimulation, etc. What applies to CC/hMG/hCG does not apply to the hMG/hCG protocol.

In the IVF/ET Program at GBMC, ovarian hyperstimulation is individualized and tailored to patient need and response. Originally, patients were stimulated with hMG/hCG or pure follicle stimulating hormone (FSH)/hMG/hCG. CC/hMG/hCG was occasionally used. Late in 1987, gonadotropin releasing hormone analog (GnRHa, leuprolide acetate) became available, and it was used on thirteen IVF patients between October and December of that year.[5] These patients had at least six oocyte retrieval attempts and ET, but never succeeded with a pregnancy. GnRHa was used for four weeks prior to administration of FSH/hMG/hCG; six out of thirteen patients became pregnant. With this impressive result, GnRHa became part of our armamentarium for ovulation induction in IVF patients.

GnRHa is structurally similar to GnRH. Because of its agonistic effect when used during the early follicular phase (starting on the second menstrual cycle day), it induces a flare-up of FSH and luteinizing hormone (LH) secretion; therefore, this increased secretion helps to increase the number of recruitable follicles. By the fifth menstrual cycle day, FSH and LH levels decrease once the GnRH receptors are down-regulated. Although administration of GnRHa during the early luteal phase (48 hours post-ovulation, serum progesterone (P) levels >3 ng/ml) induces an increase in gonadotropins, it does not prolong the life of the corpus luteum, and all patients will menstruate at the expected time.

Follicular Phase Leuprolide Acetate, or Flare-up Protocol (FPL) All patients start leuprolide acetate on menstrual cycle day two. Leuprolide acetate is given subcutaneously every morning, at a dose of .75 mg for patients under 75 kg, and 1 mg for patients over 75 kg. Ovarian stimulation with exogenous gonadotropins was not started until cycle day five. One ampule of hMG, containing 75 IU of FSH and 75 IU of LH, along with one ampule of pure FSH containing 75 IU of FSH, were given intramuscularly at 8 a.m., and the same dose of hMG and pure FSH was given at 3 p.m. Blood was drawn daily at 7 a.m. starting on cycle day two. Serum was assayed for E_2, FSH, and LH on cycle days two through five, and for E_2 thereafter. Once the E_2 was >250 pg/ml, daily pelvic ultrasound for follicle monitoring was begun. Ovulation induction was individualized based on serum E_2 and ultrasound findings. When serum E_2 was >270 pg/ml, the afternoon pure FSH was not given. Ovarian stimulation continued with one ampule of hMG and 75 IU of pure FSH in the morning, and one ampule of hMG in the afternoon until two follicles were >12 mm in diameter.

Table 1. Indications for IVF at GBMC

Diagnosis	1987	1988	1989
Tubal Factor	152 (54.2 percent)	122 (50.6 percent)	188 (52.8 percent)
Endometriosis	69 (26.4 percent)	64 (26.5 percent)	71(20.0 percent)
Male Infertility	39 (14.0 percent)	39 (16.0 percent)	57 (16.0 percent)
Normal Infertile Couple	12 (4.2 percent)	8 (3.3 percent)	24 (6.7 percent)
Other	8 (2.8 percent)	5 (2.0 percent)	16 (4.5 percent)

The morning pure FSH injection was stopped, and the patient was continued with one ampule of hMG in the morning and one in the afternoon until two follicles were at least 16 mm in diameter. That evening, 10,000 units of hCG were injected intramuscularly between 9 p.m. and 1 a.m. Oocyte retrieval was scheduled 35-36 hours after the hCG injection. Serum P was measured at 7 a.m. on the day of hCG injection, the day of oocyte retrieval, and the day of embryo transfer.[6]

Luteal Phase Leuprolide Acetate Protocol (LPL). Patients started leuprolide acetate 48 hours after ovulation, or when P levels were >3 ng/ml. Leuprolide acetate was given subcutaneously every morning, at a dose of .75 mg for patients under 75 kg, and 1 mg for patients over 75 kg. Blood was drawn at 7 a.m. once a week. Ovarian stimulation was started after the menstrual period, once FSH and LH levels were suppressed. Pure FSH and hMG were given in the same way as for the flare-up protocol.[6]

Oocyte Retrieval, Fertilization, and Embryo Transfer

Oocyte retrieval by ultrasound guided transvaginal aspiration is done in 97 percent of our patients. Oocyte retrieval by trans-laparoscopic aspiration is reserved only for those patients requiring a concomitant diagnostic laparoscopy. We do not perform operative laparoscopy or tuboplasty in association with oocyte retrieval. The size of the ovaries, vascularization, and the risk of the hyperstimulation syndrome make the whole scenario less than satisfactory for microsurgical intervention. Furthermore, it is preferable to avoid exposing oocytes to general anesthesia and CO_2.

All oocytes obtained are classified according to the degree of maturation. With the use of GnRHa, not only has the number of follicles increased, but the quality of oocytes has improved substantially. The preovulatory oocyte rate has increased significantly from 48 percent to 84 percent. At the same time, there was a decrease in the number of immature and atretic oocytes from 22 percent to 4 percent in each group. These changes represent much better follicular recruitment and synchronization under the GnRHa/FSH/hMG/hCG stimulation protocol. Until December 1989, a maximum of six oocytes were inseminated with 150,000 washed motile sperm per ml of media, 3 to 26 hours after retrieval, depending upon the degree of maturation. In the event of a male factor, 350,000 to 500,000 sperm were used for insemination. The insemination media consisted of Ham's F-10 medium (Gibco, Grand Island, NY), supplemented with 7.5 percent heat-activated fetal cord serum (FCS). On day one after insemination, the cumulus was removed mechanically to look for the presence of pronuclei. If fertilization did not occur, the oocytes were re-inseminated. The overall fertilization rate fluctuated between 72 percent and 76 percent per fertilizable oocyte. After fertilization, the embryos were incubated in 5 percent CO_2 in air at 37° C. Embryo transfer was performed 72 hours after oocyte retrieval, as described by Jones et al.[7]

All patients who underwent ET received supplemental P throughout the luteal phase. If beta-hCG levels were elevated, the patient was given 17-hydroxyprogesterone caproate, 250 mg IM weekly, until the 12th week of pregnancy. Pregnancy was established when at least two serum beta-hCG titers drawn a minimum of ten days after ET were noted to be rising, and there was ultrasonic or histologic evidence of pregnancy. Fetal heart activity and multiple pregnancy were detected by transvaginal ultrasound three to four weeks after ET.

Results

The successful outcome of IVF/ET has been steadily increasing during the past two years in our institution. There are several factors that might have contributed to the higher pregnancy rate. The use of GnRHa during ovarian stimulation brought with it an increase in the quality and quantity of oocytes; therefore, the average number of embryos transferred per patient increased from 2.6 to 3.5. The pregnancy rate per cycle with embryo transfer was 32 percent and 33 percent in 1988 and 1989, respectively. This represents an increase from the 25 percent pregnancy rate achieved in 1987. The miscarriage rate is 27 percent, and the ectopic pregnancy rate of 2 percent remains constant. One-half of the ectopic pregnancies are associated with intrauterine pregnancies (Table 2). The multiple pregnancy rate abruptly increased from 11.5 percent in 1987 to 35.1 percent and 38.5 percent in 1988 and 1989, respectively (Table 3). The increase in the num-

Table 2. Pregnancy and Miscarriage Rates from 1987 to 1989 at GBMC's IVF Program

	1987	1988	1989
Patients	280	320	356
IVF Cycles	440	533	613
Cycles with Embryo Transfer	386	495	546
Total Pregnancies	98	158	182
Miscarriages	36	44	50
Ectopic Pregnancy*	3	6	5
Pregnancy Rate/Cycle with Embryo Transfer	98/386 (25 %)	158/495 (32 %)	182/546 (33 %)
Deliveries	61	108	67
Ongoing Pregnancies	-	-	60
Birthrate/Cycle with Embryo Transfer	16 %	22 %	23 %

*50 percent of ectopics associated with intrauterine pregnancy
Pregnancy rate per patient = 21.7 percent, 33.7 percent, and 37.6 percent, respectively

Table 3. Multiple Pregnancies, 1987-1989

	1987	1988	1989
Delivered/Ongoing Pregnancies	61	108	127
Singleton	54	70	77
Twins	7	27	33
Triplets	0	9	13
Quadruplets	0	2	4

ber of embryos, pregnancy rate per embryo transfer, and multiple pregnancy are a reflection of the quality of ovarian stimulation, oocytes, and embryos. The live birthrate per cycle with embryo transfer was 22 percent in 1988. The birthrate and ongoing pregnancy rate from 1989 to the present is 23.2 percent (Table 2).

The prognosis for IVF/ET is also related to the age of the patient, the number of IVF attempts performed, the indication for IVF and, finally, the type of ovarian stimulation response. In our program, the ongoing pregnancy rate per ET between July 1985 and June 1988 for patients younger than age 30 was 26 percent. Patients from ages 30 to 36 had an ongoing pregnancy rate per ET between 16 to 24 percent; whereas patients aged 37 and 38 years had an ongoing pregnancy rate of 9 percent and 11 percent, respectively. Although the pregnancy rate per cycle was almost identical, the miscarriage rate varied significantly: patients younger than 30 years of age had a 22 percent risk of spontaneous abortion; patients aged 30-34 years and 35-39 years had a 31 percent and 29 percent risk, respectively. Patients aged 40 and over had a spontaneous abortion rate of 58 percent.[2]

The cumulative clinical pregnancy rate by life table analysis was 95 percent. The probability of pregnancy remained constant during each attempt. Although 60 percent of pregnancies occurred during the first three IVF attempts, the probability of conception per IVF attempt was not different on the fourth, fifth, or tenth attempt. Therefore, our data do not support the recommendation of other IVF centers to limit the number of IVF attempts to only three.

The pregnancy rate per diagnosis is similar for the tubal factor, endometriosis, or the normal infertile couple, 54 percent, 56 percent and 58 percent, respectively. However, it is lower in the male factor, 43 percent. The miscarriage rate is comparable in those three groups, but much higher in male factor patients in which it increases to 40 percent.

The success of IVF is also related to the type of ovarian hyperstimulation response, especially when GnRHa is used. Padilla et al[8] reported the prognostic value of the early serum E_2 response to leuprolide acetate in in vitro fertilization. Four patterns of E_2 response were described according to the E_2 increase during the first five days of stimulation: *Pattern A* - serum E_2 doubled the baseline value by cycle day three, followed by at least a 10 percent drop by cycle day four; *Pattern B* - serumE_2 showed a delayed elevation when doubling of the baseline E_2 level occurred by cycle day four or cycle day five, followed by a fall; *Pattern C* - serum E_2 showed a prompt and persistent rise with no fall by cycle day five; *Pattern D* - E_2 levels remained consistently low during the five days of GnRHa administration. The clinical pregnancy rate per cycle with embryo transfer for Patterns A,B,C, and D was 46 percent, 38 percent, 16 percent, and 6 percent, respectively. The live birthrate per cycle for the different patterns was 39 percent, 38 percent, 11 percent, and 6 percent, respectively (Figure 1). Furthermore, the E_2 profile and the E_2 level on the day of hCG administration correlated very well with a higher pregnancy rate and a lower miscarriage rate when E_2 levels were >2500 pg/ml.[9]

IVF-Related Procedures

Gamete Intrafallopian Transfer (GIFT) has been performed at GBMC since 1986. The ovarian hyperstimulation protocol is similar to the one used for IVF/ET patients. Oocyte retrieval is carried out transvaginally with ultrasound guidance. The oocytes are mixed with 100,000 washed spermatozoa and transferred into the ampullary portion of the tube through the laparoscope, using a double puncture technique. The overall success rate has been 33 percent, and the miscarriage rate is slightly lower than that of IVF, 22 percent. The number of oocytes transferred fluctuates between three and five per patient. The multiple pregnancy rate is 13 percent, which is much lower than in IVF/ET.

Zygote Intrafallopian Transfer (ZIFT) was initiated at GBMC in the fall of 1989. Although our experience is limited, the success rate is no different from the IVF or GIFT procedures.

Donor Oocyte Program. This program has been in existence at GBMC's IVF Program since 1987. Patients are encouraged to donate excess preovulatory oocytes to anonymous recipients. Recipients may have premature menopause, gonadal dysgenesis, ovarian insensitivity, and a history of poor response to ovarian stimulation. The recipient's endometrium is stimulated with an increasing amount of estradiol valerate, given for a period of at least two weeks. If a suitable donor oocyte is not available by the 15th endometrial-replacement day, the patient continues taking the same amount of estradiol valerate until a matching donor is found. With this kind of protocol,

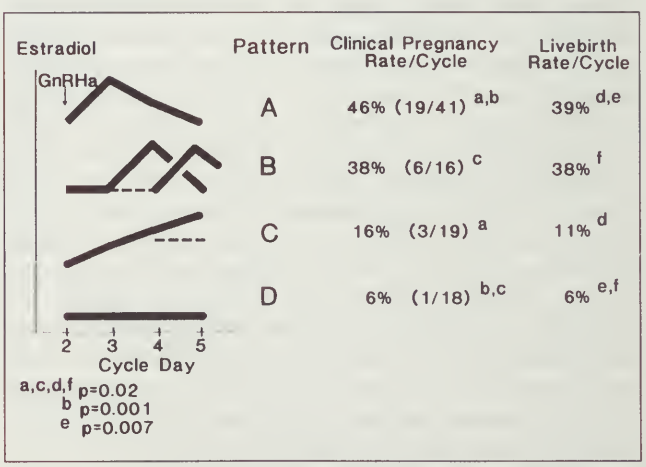


Figure 1. Clinical pregnancy rate and live birthrate per stimulated cycle for each of the early E_2 patterns after the initiation of the leuprolide acetate (GnRHa). (From Padilla SL, Bayati J, Garcia JE: Prognostic value of the early serum estradiol response to leuprolide acetate in in vitro fertilization. Fertil Steril 53:288, 1990. Reproduced with the permission of the publisher, The American Fertility Society, Birmingham, Alabama).

we have maintained patients on standby for up to 57 days before suitable oocytes were available. The pregnancy rate per embryo transfer for the recipient was double that of the overall IVF/ET pregnancy rate. It is possible that the receptiveness of the endometrium is better in our recipients, although the miscarriage rate remains constant.

Cryopreservation. The increased multiple pregnancy rates achieved during 1988 and 1989 prompted us to reconsider our position with respect to embryo cryopreservation. This new program started in January 1990. At the present time, we have succeeded with three pregnancies out of our first five transfers. The cryopreservation program uses strict criteria for patient selection. A maximum of 16 oocytes per patient are inseminated. The patient is encouraged to have the embryos transferred within the next six months, and they are not allowed to undergo further ovarian hyperstimulations until all the embryos have been transferred. The embryos are stored for a period of three years, or extended up to five years in case a pregnancy from the first embryo transfer takes place. If the patient decides not to have the embryos transferred, they will be automatically donated to an anonymous recipient.

Micromanipulation Technique. At present, we are involved in the preliminary stages of this program and hope that it will be available by the time of this publication.

In summary, during its six years of existence, GBMC's IVF program has developed all aspects of the state of the art in assisted reproductive technologies. Our 23 percent "take home baby" rate per cycle with embryo transfer attests to the hard work and dedication of the whole IVF team, including IVF/Andrology technicians, nurses, secretaries, and physicians. It is anticipated that the birth of GBMC's 500th IVF baby will take place around the hospital's 25th anniversary celebration in September 1990.

References

1. Steptoe PC, Edwards RG. Birth after reimplantation of a human embryo. Lancet 1978;2:366.
2. Padilla SL, Garcia JE. Effect of maternal age and number of in vitro fertilization procedures on pregnancy outcome. Fertil Steril 1989;52:270-73.
3. Garcia JE, Jones GS, Acosta AA, Wright Jr. G. Human menopausal gonadotropin/human chorionic gonadotropin follicula maturation for oocyte aspiration. Phase I, 1981. Fertil Steril 1983;39:167.
4. Garcia JE, Jones GS, Acosta AA, Wright Jr. G. Human menopausal gonadotropin/human chorionic gonadotropin follicular maturation for oocyte aspiration. Phase II, 1981. Fertil Steril 1983;39:174.
5. Garcia JE, Padilla SL, Bayati J, Baramki TA. Clinical response to gonadotropin-releasing hormone agonist in normal ovulatory women (Abst). Presented at the VI World Congress on In Vitro Fertilization and Alternate Assisted Reproduction. Jerusalem, Israel, April 2-7, 1989.
6. Garcia JE, Padilla SL, Bayati J, Baramki TA. Follicular phase gonadotropin-releasing hormone agonist and human gonadotropins: A better alternative for ovulation induction in in vitro fertilization. Fertil Steril 1990;53:305.
7. Jones Jr. HW, Acosta AA, Garcia JE, Sandow BA, Veeck LL. On the transfer of concepti from oocytes fertilized in vitro. Fertil Steril 1983;39:241.
8. Padilla SL, Bayati J, Garcia JE. Prognostic value of the early serum estradiol response to leuprolide acetate in in vitro fertilization. Fertil Steril 1990;53:288.
9. Garcia JE, Padilla SL, Bayati J, Baramki TA. Do high estradiol levels affect the pregnancy rate and miscarriage rate in in vitro fertilization? Fertil Steril 1989(suppl);53.

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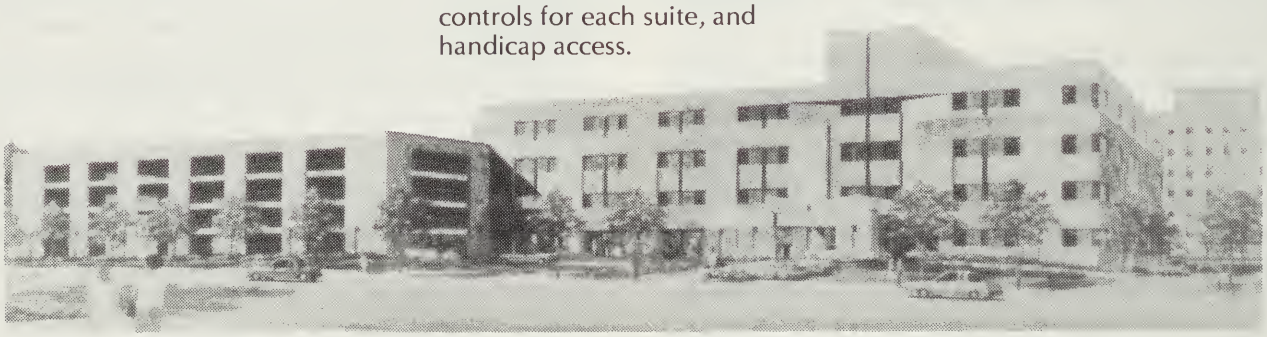
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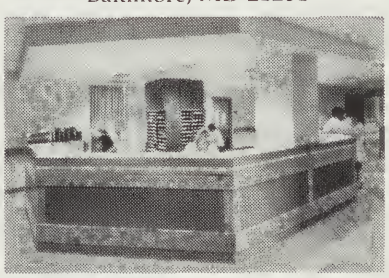




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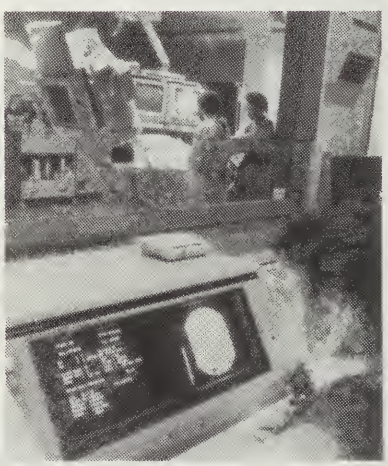
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Pathogenic Factors in the Development of Type I and Type II Diabetes Mellitus: 1990

Thaddeus E. Prout MD, FACP

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The pathogenesis of IDDM and NIDDM indicates a distinct difference between these diseases. Viral illness is implicated in IDDM, linked with evidence for an immune deficiency. NIDDM is not linked to viral illness or autoimmunity but is highly influenced by the inheritance of a defect in insulin production.

Diabetes mellitus consists of a group of disorders due to an absolute or relative insulin deficiency. Insulin dependent diabetes mellitus (IDDM), or Type I diabetes, makes up about 15 percent of all diabetics, and non-insulin dependent diabetes mellitus (NIDDM), or Type II diabetes, nearly all of the remaining 85 percent. A small number of patients have diabetes secondary to another primary disorder (e.g., hemochromatosis or chronic pancreatitis) which causes the decrease in insulin production. Consensus has now established the specific criteria for diagnosis that clearly define diabetes in all forms and effectively eliminate the confusion caused by terms such as "chemical diabetes" and "borderline diabetes." In this paper, the current concepts of the pathogenesis of the primary forms of diabetes will be described.

Insulin Dependent Diabetes Mellitus (IDDM)

IDDM typically begins with the rapid disappearance of circulating levels of endogenous insulin and decompensation of normal glucose metabolism. A later, brief, and inconstant period of insulin production called the honeymoon period may give fain hope to patients that the diagnosis is incorrect. This interlude has long intrigued students of the disease as a key to cause. Opie, working at the Johns Hopkins Hospital around the beginning of this century, described lymphocytic infiltrations of the pancreatic islet and suggested that this was evidence of an infectious process. An epidemic of diabetes following mumps, described in Norway over 60 years ago, added credibility to the belief that viral illness might be implicated in the development of diabetes. More recently, diabetes following vaccinations, the association of diabetes with the congenital rubella syndrome, and its long recognized seasonal fluctuations intensified the search for a virus as the causative agent of diabetes.

Work on the possible viral etiology of diabetes culminated almost 20 years ago when a virus isolated from the pancreas of a human subject dying of diabetes was shown to destroy cultured human beta cells in vitro, as well as to cause diabetes when injected

into normal mice. The search for a specific viral agent has shown that there are more than 20 strains capable of causing diabetes in test animals, and this has extinguished the hope that a single or small group of viruses might be used to create a specific vaccine for the prevention of this disease.

It is now recognized that lymphocytic infiltration of the islets is related not only to the development of diabetes following viral infection but also follows the experimental use of toxins that destroy beta cells in animals. This rediscovery of "insulitis" under these different circumstances has linked the lymphocytic infiltration to the destruction of cells and appears to be the proximate cause of diabetes in animals and human subjects.

The pathogenic events that ultimately cause diabetes may be multifactorial, and include molecular, cellular, genetic, and environmental contributors. These appear to have a common mechanism in autoimmunity. This theory is supported by several interlocking lines of evidence. With the onset of diabetes, there is frequently a concomitant rise in viral antibodies and insulin cell antibodies, and an abrupt fall in circulating levels of insulin. Genetic factors are supported by evidence that nearly 90 percent of patients with IDDM share one or more inherited specific markers among the human leukocyte antigens (HLA DR3 or DR4), as a result of which susceptibility to diabetes is increased fivefold over that of the normal population. When both of these markers are inherited, the susceptibility rises to 15-fold over that of the normal population. Other autoimmune diseases, especially autoimmune thyroiditis, is more common among both patients with IDDM and their first degree relatives. Recent work has suggested that susceptibility to IDDM seems to be highly attributable to the DQ locus as well.

In order to understand the steps involved in beta cell destruction, it is essential to understand immune theory as it relates to autoimmune disease. The responsible major histocompatible complexes, MHC, reside in man with the HLA on the short arm of chromosome 6. Also located on the short arm of chromosome 6 is a large group of interrelated physiologic factors that are designed to protect the host and to destroy foreign invaders. In this area are sites governing the actions of macrophages, the presenters of antigen to regulator lymphocytes for activation of the killer cell-helper cell system, as well as initiators of antibody production by the B cells. Intimately related with these destructive forces are the suppressor cells, one function of which is to prevent harm to host cells. It is the interplay of these balanced forces that normally allows the HLA system to destroy invaders without effect on host cells. Activation and presentation of an antigen from a host cell may then lead to production of cytotoxic cells and antibodies against the cell producing the antigen unless curtailed by suppressor cells. Present theory postulates that in patients with autoimmune diseases, the fundamental defect is a tilting of this imbalance toward the active destruction of the host cell producing the autoantigen and away from the suppression of self-destruction (Figure).

Within this complex mechanism are degrees of control, however, and it must be emphasized that all individuals who develop autoantibodies to the beta cell do not necessarily go on to develop diabetes. Evidence has been introduced that many individuals who develop antibodies to the islet cell may require months or years to develop evidence of glucose intolerance. Many first degree relatives of patients with IDDM may have antibodies with no demonstrable metabolic consequences. This also helps to explain the fact that monozygotic twins may be concordant for IDDM only 50 percent of the time in spite of genetic identity, whereas the genetic influence in NIDDM is concordant nearly 100 percent of the time.

The observation of this course of events opens up the possibility that agents might be found which can prevent beta cell destruction which could arrest or postpone for a significant period the development of IDDM. This is clearly one of the most interesting developments that has taken place in the field of IDDM and involves the use of cyclosporine and other drugs to interrupt this sequence.

The pharmacodynamics of cyclosporine are such that it has been the most widely tested drug in the prevention of beta cell destruction. It acts first by suppressing proliferation of cytotoxic cells and by decreasing antibody production. This effectively limits or prevents cell lysis and yet does not prevent phagocytic action by other cells. At the same time, suppressor cells are found to be relatively resistant to cyclosporine so that their action is preserved. The limitation of its effectiveness is related to frequent occurrence of renal toxicity. Discontinuation of medication immediately allows the destructive forces to again predominate, and the honeymoon period is ended.

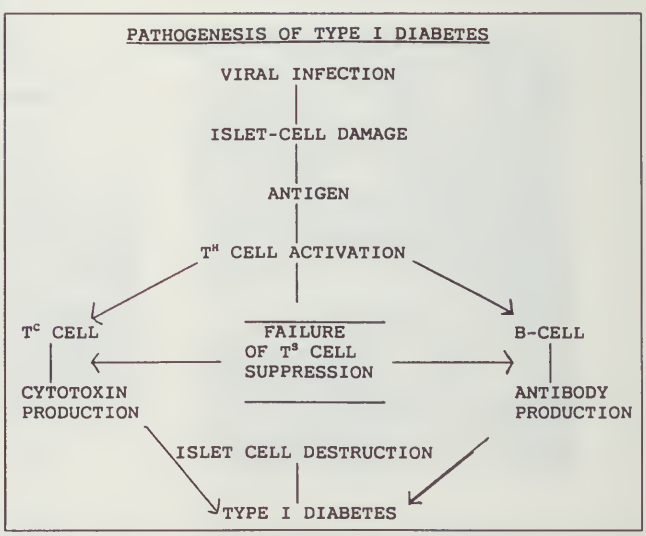


Figure. Destruction of the islet cells takes place whenever cytotoxic production or antibody production against these cells is unopposed by the suppressor cells.

Finally, the immunology of viral illness may also be useful in explaining the unfolding story of the epidemic of IDDM that is now being experienced worldwide. While the incidence of IDDM had been nearly stationary for the first thirty years of this century, the rate has nearly tripled in the last three decades. Nor can this alarming increase in insulin dependent diabetes be attributed to the propagation of offspring by the survivors of this disease following the use of insulin. It has been reliably estimated that a threefold increase by this mechanism alone would require at least 400 years to evolve.

It has also been noted that immigrants from Europe and the United States to Israel develop IDDM at a higher rate than do immigrants from Asia and Africa. This is also true of paralytic polio in nonimmunized patients. The explanation for this phenomenon is based on two observations. Polio in infancy confers immunity and at the same time has a more benign course than does polio in later life. Since immunity comes earliest to individuals surviving crowded and unhygienic conditions, early immunity to viral illnesses in infancy may alter the pathologic sequelae of the disease which develop later in both polio and IDDM. The rising incidence of IDDM in the United States over the past several decades may be due, paradoxically, to the relatively uncrowded conditions here compared to other countries. At present, the incidence of IDDM in the United States is 18 times higher than in Japan and 3 to 4 times higher than in Israel. No other explanation has been put forward to explain this apparent contradiction.

Non-insulin Dependent Diabetes Mellitus (NIDDM)

NIDDM is usually but not invariably seen in the latter decades of life and is, by definition, not dependent on exogenous insulin as lifesaving therapy. The group that develops NIDDM is more heterogeneous than the group with IDDM, and is made up almost entirely of the individuals who have had the insidious deterioration of glucose tolerance over a long span of time with few symptoms and resistance to ketosis and ketoacidosis, but with acceleration of degenerative changes of the vascular system over those of nondiabetic individuals of the same sex, age, and socioeconomic status. While these individuals may eventually require insulin to normalize blood glucose or, less commonly, actually become "insulin dependent," they are still listed as NIDDM, qualified by the physiologic status (e.g., NIDDM, insulin requiring). In addition, NIDDM includes a small group of individuals who develop diabetes as adolescents or young adults with the NIDDM characteristics. These diabetes of youth" (MODY). It is of more than passing interest that this disease seems to be uniquely inherited as an autosomal dominant and has been reported to result in an increased incidence of cardiovascular disease at a relatively early age.

Individuals who show transient aberrations in glucose control but revert to normal, and those with normal glucose tolerance tests, are classified as "previous history of diabetes." Such individuals include those who have earlier developed gestational diabetes but may have later deterioration of glucose control. Approximately 25 to 30 percent of this group of patients, and others who have had early but nonspecific alterations of glucose tolerance, will develop NIDDM at a later time. Individuals with secondary diabetes (e.g., hemochromatosis or acromegaly) who need insulin are commonly classified both as to etiology and to physiologic status (e.g., diabetes secondary to hemochromatosis, insulin requiring). Within this heterogeneous group may reside the defect that contributes to the pathogenesis of the more typical patient with NIDDM.

The studies that reveal a higher concordance of diabetes in monozygotic twins with NIDDM than similar studies in IDDM were at first viewed with skepticism because of the ingrained conviction that IDDM was a more serious disease and hence more likely to be homozygous for diabetes. When results of genetic influence for diabetes in NIDDM were confirmed and accepted, a search for the genetic linkage in NIDDM was finally begun.

The genetic expression for NIDDM has its clearest physiologic manifestation as an impaired or suppressed insulin production capacity. The risk factors for expression of this deficit are those which are teleologically consistent with this hypothesis and place a greater stress on beta cell productive capacity. Risk factors include aging, obesity, multiparity, possibly physiologic stress, and a sedentary lifestyle. Secondary causes of diabetes do not necessarily inherit a limited insulin capacity. This may explain why only a minority of patients who have diabetes secondary to a hormonal excess (e.g., acromegaly or Cushing's syndrome), insulin resistance (e.g., acanthosis nigricans), or chronic pancreatitis become insulin requiring.

Other physiologic characteristics of NIDDM are less clearly related directly to an inherited characteristic and possibly are secondary to other environmental factors. These defects include tissue resistance, both in vitro and in vivo, a lowering of the insulin receptors, and a postreceptor resistance to insulin effect on intercellular metabolism. It is difficult to prove that these deficiencies are not due directly to hyperglycemia. Claims that oral hypoglycemic agents have a direct role in increasing the number or activity of insulin receptors, tissue resistance, or postreceptor intracellular metabolism must address this issue.

The genetic expression for insulin production has been located on the short arm of chromosome 11. The gene, now referred to as the *diabetes gene*, is expressed in the beta cell of the pancreas where the primary messenger RNA is processed to the messenger for proinsulin. Basic reviews of this complex subject are available which detail the specific steps in this process. The genetic code has been isolated and deciphered in

nondiabetic patients, as well as in patients with IDDM and NIDDM. The codes for insulin in all of the subjects have been found to be identical. Differences were seen, however, in an insertion in the chromosome preceding that for insulin itself. There, insertions of variable length are found more commonly in Type II diabetes than in Type I or in nondiabetic subjects. This area ("flanking 5' insertion") has been implicated, but not proven, in the defect in insulin production identified in NIDDM.

This genetic identifier has now been traced through three generations of Type II diabetic subjects. It has also been recognized, however, that some nondiabetic subjects have the aberrant insertions as well, and thus the precise importance of the flanking insertion remains controversial. Interestingly, this apparent contradiction may strengthen the evidence for the physiologic effect of the aberrant insertion. A recent study has demonstrated that nondiabetic patients who have inherited this aberration have above normal levels of glycosulated hemoglobin, unlike nondiabetic subjects without the aberrant insertion. This finding is at least consistent with the hypothesis that a decreased insulin secretory capacity follows this change.

Molecular and genetic research in diabetes have concentrated first on the region of the gene that controls initiation or promotion of the transcription of the insulin code and, ultimately, on the introduction of a cloned initiator-promoter into mammalian cells. Considerable success has resulted from these efforts. Cloned mouse cells programmed to produce human proinsulin have been injected intraperitoneally into immunosuppressed diabetic mice. After seven days, increasing levels of insulin with a concomitant drop in blood glucose have been reported. These experiments provide evidence that encoded mammalian cells can be demonstrated to function as producers of human insulin with physiologic significant effects on glucose metabolism.

Many problems must be solved between these early experiments and those which would allow encoding of, for example, the stem cell from the bone marrow of a specific patient with NIDDM and transferring these insulin encoded cells back into the original donor. Since the injected cells would be identified as self, this could presumably be done without need for immunosuppression. This would allow production of physiologically significant amounts of human insulin from an autologous source. Recent studies have shown that human cells have now produced human proinsulin in vitro. This gives one the vision of a new dimension in the future treatment of both IDDM and insulin requiring NIDDM.

Summary

A summary of the pathogenic spectrum for IDDM and NIDDM shows the distinct differences between these diseases. The viral initiation of IDDM is supported by the production of viral antibodies, viral recovery, and the production of diabetes in animals by viral transfer. This is linked with evidence for an immune deficiency manifested by failure of suppressor cells to prevent beta cell destruction. The likelihood of IDDM is highly correlated with the presence of specific HLA types, DR3 and DR4, carried on chromosome 6 and possibly other sites.

Type II diabetes is not linked to viral illness or autoimmunity but is highly influenced by the inheritance of a defect in insulin production carried on chromosome 11. Expression of this defect is associated with environmental factors, especially obesity, in which 85 percent of such patients develop NIDDM.

The quest for the pathologic basis for diabetes would be an empty though challenging intellectual exercise if it were not possible to see some preventive or therapeutic implications in this new knowledge. For Type I diabetes, cyclosporine has been used to demonstrate that suppression of the autoimmune response, while leaving other functions of immune protection intact, can limit destruction of the pancreas in individuals who are susceptible to IDDM. New and more effective agents for long-term use are now needed. Following the identification and isolation of the *diabetic gene*, it has now been possible to encode this in mammalian cells and to produce human insulin in tissue culture. Research is continuing to develop the capability of insulin production by encoding a patient's own cell line. Such a breakthrough could, of course, be a very important adjuvant to treatment of both IDDM and NIDDM, since the eventual key to the cure of diabetes must be by either preserving or providing new insulin secreting cells in the diabetic patient.

Selected Bibliography

1. American Diabetes Association, Inc., Alexandria, VA, 1984. The physician guide to type II diabetes: Diagnosis and treatment.

2. Dobs AS, Phillips JA, III, Mallonee RL, Saudek CD, Ney RL. Pedigree analysis of the 5' flanking region of the insulin gene in familial diabetes mellitus. Metabolism 1986;35:13-17.

3. Diabetic Honeymoon: Prolonged at a price? (Editorial) Lancet 1989;1:1235-1236.

4. Fajans SS. Maturity-onset diabetes of the young (MODY). Diabetes Metab Rev 1989;5:579-606.

5. Feutren G, Assan R, Karsenty G, Du Rostu H, Sirmai J, Papoz L, Vialettes B, Vexiau P, Rodier M, Lallemand A, Bach JF. Cyclosporin increases the rate and length of remissions in insulin-dependent diabetes of recent onset: Results of a multicenter double-blind trial. Lancet 1986;2:119-124.

6. Krolewski AS, Warram JH, Rand LI, Kahn CR. Epidemiologic approach to the etiology of type I diabetes mellitus and its complications. New Engl J Med 1987;317:1390-1398.

7. Owerbach D, Billesbolle P, Poulsen S, Nerup J. DNA insertion sequences near the insulin gene affect glucose regulation. Lancet 1982;1:880-883.

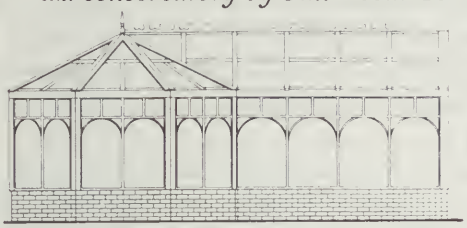
8. Patrick SL, Moy CS, LaPorte RE. The world of insulin dependent diabetes mellitus: What international epidemiologic studies reveal about the etiology and natural history of IDDM. Diabetes Metab Rev 1989;5:571-578.

9. Rossini AA, Mordes JP, Handler ES. Speculations on the etiology of diabetes mellitus: Tumbler hypothesis. Diabetes 1988;257-261.

10. Rotwein PS, Chirgwin J, Province M, Knowler WC, Pettitt DJ, Cordell B, Goodman HM, Permutt MA. Polymorphism in the 5'

flanking region of the human gene: A genetic marker for non-insulin-dependent diabetes mellitus. N Engl J Med 1983;308:65-71.
11. Seldin RF, Skoskiewicz MJ, Russell PS, Goodman HM. Regulation of insulin-gene expression: Implications for gene therapy. N Engl J Med 1987;317:1067-1076.
12. Silverstein J, MacLaren N, Riley W, Spillar R, Radgenovic D, Johnson S. Immunosuppression with azathioprine and prednisone in recent-onset insulin-dependent diabetes mellitus. N Engl J Med 1988;319:599-604.
13. Steiner DF, Chan SJ, Welsh JM, Kwok SCM. Structure and evolution of insulin gene. Annu Rev Genet 1985;19:463-484.
14. Yoon JW, Onodera T, Notkins AA. Virus induced diabetes mellitus: Isolation of a virus from the pancreas of a child with diabetic ketoacidosis. N Engl J Med 1979;300:1173-1179. ■

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IN THE HOSPITAL

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IN THE COMMUNITY

Recognizing the Symptoms of a Heart Attack

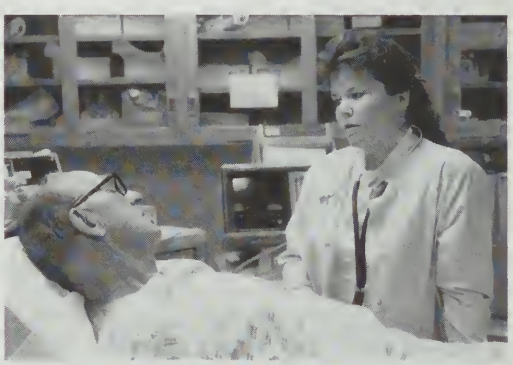
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900 Caton Avenue, Baltimore, MD 21229

Parvovirus and Epidemic Arthritis

Charles A. Haile MD

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Five cases of acute polyarthritis in individuals with serologic evidence of recent human parvovirus B_{19} infection were seen in one medical practice. Several individuals had had direct exposure to children with rash, and fifth disease was endemic in the community. All cases were associated with the presence of both IgG and IgM antibody to human parvovirus.

Fifth disease or erythema infectiosum, a common benign infectious exanthem of childhood, has long been described in the medical literature and is familiar to all pediatricians. Outbreaks frequently occur in the spring and summer, and usually in children between the ages of five and fifteen. It often has a characteristic rash (diffuse erythema of the malar region) which has been called "slapped cheek syndrome."

The relationship of fifth disease to parvovirus B_{19} was established after the study of an outbreak of fifth disease in elementary school children in England (involving almost 600 cases) in which anti-parvovirus virus B_{19} IgM antibody was found in those individuals studied, but was not present in control cases.[1] A report of a similar outbreak in Manitoba, Canada, which had occurred in 1980, was published the following year. Human parvovirus was detected by DNA hybridization studies and immune electron microscopy, and confirmed by serologic investigation.[2] Until recently, little has been known about the clinical manifestations of this infection in adults. Nevertheless, early literature[3,4] suggested, on epidemiologic grounds, that occasionally, significant arthritis as well as debilitating fatigue and depression could occur in adults. It was observed, however, that adults exposed to children with fifth disease usually did not suffer major clinical illness. Because of the lack of commonly available diagnostic tests, as well as the lack of knowledge of parvovirus and its potential syndromes, it would seem that the illness is rarely diagnosed in adults.

Parvovirus Case Histories

The current cases are presented as cases of probable acute parvovirus infection since all patients had evidence of both IgG and IgM anti-parvovirus B_{19} antibody in serum specimens obtained one to three weeks after their initial symptoms (Table 1).

Septicemic-like

Case 1 B.S. is a 58-year-old white female who became acutely and severely ill with generalized joint pain and swelling, fever, and

skin rash in mid-June 1987. The patient was admitted to a local hospital with suspected Rocky Mountain Spotted Fever. At the time of admission, the patient was not able to get out of bed because of pain and joint swelling, and was brought to the hospital via ambulance. The rash was red and raised; it was most prominent on the extremities. The arthritis involved multiple joints including hands, knees, and ankles. The patient instructed children in her home. However, none of the children were ill or were noted to have rash. Rocky Mountain Spotted Fever was ruled out serologically, and the patient gradually improved over a one- to two-week period. The patient reported four months later that her symptoms had recurred four or five times with generalized joint aches and bad temper, but in general she had returned to normal. At six-month and two-year follow-up, the patient was doing well without related complaints.

Prolonged Fatigue, Arthralgia, and Depression

Case 2 M.H. had been complaining of fatigue and low-grade fever approximately two weeks before becoming acutely ill in mid-April 1987. At about the time the patient became ill, her two children were noted to have a generalized macular rash. One of the children had a classic "slapped cheek syndrome." A number of playmates of the children had recently been diagnosed as having fifth disease.

Over a 48-hour period, the patient noted fever to 102° and migratory polyarthralgia involving sequentially the shoulders, small joints of the hands, wrists, elbows, ankles, and knees. The patient used aspirin and Indomethacin without improvement. On examination at the initiation of the illness, there was obvious swelling and redness of the small joints of the hands, as well as ankles and knees. Sedimentation rate was elevated to approximately twice normal, but rheumatoid factor and ANA were negative. Piroxicam was prescribed with much symptomatic improvement in joint swelling. Nevertheless, the patient continued to have severe arthralgia and almost incapacitating fatigue for a period of six weeks. At the two-month follow-up, the patient was not able to perform her usual household chores and seemed depressed. At the six-month follow-up, the patient continued to complain of severe *episodic* arthralgia and fatigue. A tricyclic antidepressant was prescribed by a psychiatrist without much benefit. A two-year follow-up revealed that the patient continued to complain of easy fatigability and episodic arthralgia, but was able to perform her usual daily functions.

Case 3 L.H. is a 40-year-old white female who became ill in early April 1987 with complaints of frontal headache, sore throat, and arthralgia. Within 48 hours, the patient developed a diffuse maculopapular rash prominent on the hands and thighs. Although there was no tick exposure history, the patient was begun on tetracycline because of the concern of possible Rocky Mountain Spotted Fever. Nevertheless, the patient continued to be ill, and acute and convalescent Rocky Mountain Spotted Fever serology was negative. The

Table 1. Characterization of Patients

	Case 1 BS	Case 2 MH	Case 3 LH	Case 4 MB	Case 5 EB
Sex	F	F	F	F	F
Age	58	37	40	44	40
Acute Serum Antibody	IgG+	IgG+	IgG+	IgG+	IgG+
to Parvovirus B_{19}	IgM+	IgM+	IgM+	IgM+	IgM+
Timing of Serum (after initial symptoms)	3 weeks	2 weeks	2 weeks	2 weeks	1 week
Rash	Yes, generalized including palms and soles	Yes, transient face only	Yes, recurring face, hands, thighs	Yes face, palms	None
Exposure History	Teaches children	Both daughters had rash, one with "slapped cheek syndrome"	None	Schoolteacher	Both daughters had rash near time of illness
Arthritis	Hands, knees, ankles	Migratory, especially hands, knees Persistent generalized achiness	Hands, knees, ankles Persistent generalized achiness	Hands, knees, ankles	Hands, knees, ankles
6 Month Interview	Healthy	Fatigue, depression, episodic complaints	Fatigue, depression, episodic complaints	Healthy	Occasional arthralgias
2 Year Interview	Healthy	As above	As above	Healthy	Healthy
Liver Function Test			SGPT 117 (0-50) SGOT 55 (0-50) Alk. Phos. 192 (35-130)		
Sedimentation Rate	N.D.	45 (0-20)	42 (0-20)	25	N.D.
Rheumatoid Factor	N.D.	Negative	Negative	Negative	N.D.
Antinuclear Antibody	N.D.	Negative	Positive 1:40	Negative	N.D.
Loss of Time from Work	2 weeks	3 weeks (unable to perform duties fully for 3 mos.)	6 weeks (unable to perform duties fully for 3 mos.)	1 day	None
Initially Confused with Rocky Mountain Spotted Fever	Yes	No	Yes	No	No

patient had moderate erythema of the face and evidence of moderate swelling of multiple joints, including fingers, knees, and ankles. Eventually, the patient saw a rheumatologist and was placed on Naproxen with symptomatic relief. Because of fatigue and arthralgia, the patient was unable to work for more than a six-week period of time, but gradually after two months was back to work on a half-time basis. Rheumatoid factor and antinuclear antibody were negative, and the sedimentation rate was elevated to twice the upper limit of normal. At six-month and two-year follow-up, the patient continued to complain of fatigue, depression, and episodic arthralgia, and continued to require the use of Naproxen.

Acute, Transient, Self-Limited Arthritis

Case 4 M.B. is a 44-year-old schoolteacher who first became ill in early June 1987 with fatigue and then transient rash of the thighs and calves. The patient complained of extreme fatigue and then developed painful swelling of the hands, knees, and ankles. On examination, there was evidence of a mild, malar rash with moderate swelling of the fingers, especially around the MCP joints. The palms were markedly erythematous, and the knees and ankles were also modestly swollen and warm to the touch. The patient felt dramatically better after ibuprofen was instituted, and after a period of approximately ten days felt entirely well. She has remained well.

Case 5 E.B. is a 40-year-old white female seen in late May 1987 with complaints of a two-week history of headache, chilliness, fatigue, and migratory arthralgia. On examination, there was evidence of enlarged cervical lymph glands, with moderate swelling and pain on motion of the knees. At two-week follow-up, the patient continued to complain of a debilitating intermittent pain and swelling of the knees and ankles. The patient self-medicated with ibuprofen with some relief. At two-month, six-month, and two-year follow-up, the patient was well.

Results

Five cases of acute polyarthritis associated with serologic evidence of acute parvovirus B_{19} infection are described. All patients were seen in one small medical practice within a two-month period of time. All patients were women with ages clustering in the fourth decade. Several had exposure to children with rash. All patients had serum drawn during the acute phase of their illness, varying in time from one to three weeks after the onset of symptoms. Serologic testing was performed at the Centers for Disease Control, Atlanta, Georgia, Department of Virus Diseases, by an enzyme-linked immunosorbent assay using the indirect antibody capture method.[5] The original antigen for this assay was harvested from a patient in aplastic crisis with high titered parvovirus B_{19} viremia. (Cutoffs for positive and negative sera had been previously established by studying populations of patients with fifth disease, aplastic crises, and a variety of other nonrelated medical illnesses and other controls.)

Four of the five patients had rash, in which involvement of the hands (especially palms) was noted in three. In several patients, the diagnosis of Rocky Mountain Spotted Fever was clinically suspect but subsequently ruled out by serologic testing. Arthritis, especially involving hands, knees, and ankles was noted uniformly.

Significant disability, as manifested by loss of time from work or usual occupation, was noted in two patients. These patients were unable to return to full-time activity until approximately three months had passed. Both patients continued to complain of episodic depression, arthralgia (without overt signs of arthritis), and fatigue for more than two years after their initial symptoms. Both patients continue to require maintenance therapy with nonsteroidal anti-inflammatory drugs for arthritic symptoms three years after their initial symptoms. (They had not used or required these drugs prior to becoming ill). One patient had evidence of a mild hepatitis as manifested by elevated transaminases and alkaline phosphatase. The patient lacked symptoms and signs of hepatitis however, and the chemical profile returned to normal within a six-week period of time.

Discussion

There is much evidence that parvovirus B_{19} was the responsible agent for the illnesses occurring in these individuals.

Parvovirus infection, as manifested by fifth disease, was being diagnosed frequently in the community at the time. A number of the individuals who became ill were exposed to children with rash, and several of the children had actually been diagnosed by their pediatrician as clinically having fifth disease. All of the patients studied had evidence of both IgG and IgM parvovirus B_{19} specific antibody present in serum specimens obtained shortly after the onset of their illness.

The possibility that the parvovirus was a passenger virus and not responsible for the clinical symptomatology seems remote. Although it would have been optimal to have had control sera from other individuals in the medical practice run concurrently, this was not done. Nevertheless, the parvovirus assay performed at the Centers for Disease Control has been well standardized and employs appropriate positive and negative controls.[5] The uniform nature of the symptoms in the patients, the fact that parvovirus, as manifested by fifth disease, was endemic in the community at the time, and the uniform appearance of specific IgG and IgM antibody to parvovirus, strongly suggest that these were cases of parvovirus-induced disease. In several of the cases in which other etiologies were looked for diligently, no other pathogen (such as *Borrelia burgdorferii*, *Rickettsia rickettsii* or *rubella virus*) was noted. In the three patients who were tested serologically for acute rheumatoid arthritis, no

evidence for this was found. It is note-worthy that no further cases of acute polyarthritis with rash were seen in this medical practice in the ensuing two years following the initial two-month period.

It is my belief that these cases suggest a broad range of clinical expression of parvovirus infection in adults, ranging from acute, severe, incapacitating illness to acute, mild, self-limited illness to relatively severe and debilitating subacute illness to chronic illness.

Parvovirus Literature Review

Parvoviruses, dependoviruses, and densoviruses comprise the three genera of the family Parvoviridae. These viruses are small, non-enveloped, single-stranded, icosahedral DNA viruses.

Because of their size and low genetic information content, parvoviruses usually only code for a small number of structural proteins. Parvoviruses preferentially select rapidly turning over cells, such as activated lymphoid cells and gut epithelium, for replication. Parvoviruses have not, as of yet, been grown in classical tissue culture systems.[6]

The dependoviruses require co-infection with a helper virus such as adenovirus or herpes virus. As of yet, these have not been associated with human disease, although adeno-associated viruses have been isolated from humans. The densoviruses are autonomous viruses of insects. Parvoviruses are vertebrate viruses capable of autonomous replication. They have been associated with serious disease in animals (Table 2). Canine parvovirus and feline panleukopenia virus can cause severe gastroenteritis, central nervous system disease, and marrow hypoplasia, especially in young animals. Porcine parvovirus has been associated with stillbirth and abortion with intrauterine swine infection. Vaccines are in use for a number of these veterinary infections. As of yet, parvoviruses have not been implicated as causative agents of arthritis in animals.[7]

Aleutian mink disease, occurring in certain genetically susceptible strains of mink, is due to a parvovirus. This disease has, for a number of years, served as a model for human connective tissue diseases, especially systemic lupus erythematosis. Aleutian mink disease is a chronic, ongoing viral infection with high levels of circulating immune complexes with associated immune complex renal disease and vasculitis. Autoantibodies to DNA are present.[8]

As of yet, only human parvovirus B_{19} has been firmly associated with human disease. A parvovirus R_{A1} has been isolated from rheumatoid synovium in one study but its pathogenic role has not been proven.[9]

Human parvovirus B_{19} was found initially on electron microscopic examination of serum from asymptomatic blood donors showing false positive results on hepatitis B screenings.[10] These blood donors in whom the virus was initially seen by electron microscopy were asymptomatic, and for a number of years, the human parvovirus was an orphan virus (a virus in search of a disease). Nevertheless, seroprevalence studies documented that up to 60 percent of adults showed detectable specific anti-parvovirus B_{19} IgG antibodies.[11] In screening studies performed in the early 1980s, parvovirus B_{19} antigen was found in the serum of several children with sickle cell anemia in aplastic crisis.[12] This relationship has been sustained, and parvovirus B_{19} is known to be the common cause of aplastic crisis in sickle cell disease,[13] and other hemoglobinopathies and hemolytic anemias.

Experimental parvovirus B_{19} infection has been induced in humans.[14] A small number of adult volunteers agreed to be inoculated through the nasal route with human parvovirus obtained from an asymptomatic blood donor. Four of the five nonimmune volunteers developed high titered viremia in the second week after challenge during which time a mild systemic illness occurred. During viremia, reticulocytes disappeared from the peripheral blood, and hemoglobin fell. This would be expected from an agent that preferentially replicates in erythroid precursors. Neutropenia, lymphopenia, and thrombocytopenia were also noted. Approximately 2.5 weeks postinoculation, a second-phase illness associated with rash and arthralgia occurred in three of the four infected volunteers. Viremia was not demonstrated at this time. At the time of the arthralgia, the patients had developed both IgG and IgM antibody to the parvovirus. The rash was described as being maculopapular and usually involving the limbs and trunk. Arthralgia or arthritis characteristically lasted only several days, although no long-term details were provided in this study. These symptoms are typical of those seen in natural infection in the adult. Since viremia is not detectable at this point, it is possible that these manifestations may occur on an immunologic basis rather than by active virus replication.

A further study noted, by serendipity, that a child who had been in contact with an individual known to have parvovirus B_{19} viremia developed a diffuse rash.[15] Thus, it was suspected, and later shown, that this agent was the cause of the common childhood exanthem, erythema infectiosum.[2]

Further evidence for the relationship of this virus to arthralgia was documented when 42 cases of individuals with acute joint pain and serologic evidence of recent parvovirus infection were described in 1985. A rash was present in all three of the infected children, but in less than one-half of the adults.[16]

In a large retrospective study, more than 10 percent of patients attending an early synovitis clinic in Bath,

Table 2. Some Animal Diseases Associated with Parvovirus

Virus	Host	Symptoms and Signs
Canine parvovirus; Feline panleukopenia virus	cats, dogs	gastroenteritis, marrow aplasia
Porcine parvovirus	swine	intrauterine infection may lead to death
Mink parvovirus	Aleutian mink	"Aleutian mink disease" (autoimmune vasculitis)

England, were shown to have had recent serologic evidence of infection with parvovirus B_{19}.[17]

Seventeen of the nineteen patients described had arthralgia symptoms persisting for more than two months, and three of the patients had at least moderate symptoms for more than four years. Although the authors noted that the "persistence of joint symptoms was not associated with long-term joint damage or functional incapacity," they did point out that the persistent signs and symptoms occurring in three of the cases "would have fulfilled the Rheumatism Association's diagnostic criteria for rheumatoid arthritis." Nevertheless, all of the patients were seronegative for rheumatoid factor.

Most convincing, perhaps, is the recent report of a controlled clinico-epidemiologic study which seems to outline the spectrum of disease related to parvovirus B_{19} in adults.[18] Over 95 percent of the 475 adults who had been in contact with school children in a community undergoing an outbreak of erythema infectiosum were questioned or studied. Fifty-four adult cases of recent infection were serologically confirmed (Table 3). Although 14 of the adults were asymptomatic, 32 described an "influenza-like illness." In 26, an acute polyarthropathy was noted. This polyarthropathy was far more common in women than in men and lasted for up to seven months. Adults without serologic evidence of recent parvovirus B_{19} infection served as a control population. In infected individuals, the polyarthropathy was rather striking and involved predominantly the hands, knees, and ankles. Most of the adults with rash did not have a classic "slapped cheek" appearance. The rash often involved the palms or soles (in 10 of 24). The rash was also often recrudescent, seemingly precipitated by heat or emotion. Arthralgia occurred twice as commonly in women as in men (59 percent vs 30 percent). The onset was often dramatic with individuals going to bed feeling well, but on awakening, "hardly able to get up because of pain or stiffness." The authors described an arthritis rather than arthralgia, with joint swelling and stiffness in addition to pain, in a majority of cases. In this series, the arthropathy was persistent or recurrent for greater than two months in 20 percent of those with joint symptoms, and all of these were women. Occasionally, the arthropathy occurred in the absence of rash or other "influenza-like" symptoms, indicating that unless sought for, an infectious etiology could be missed. None of the patients, however, were seropositive for rheumatoid factor. The authors speculated that parvovirus B_{19} is now a more common cause of acute arthropathy than rubella, due to the falling incidence of adult rubella infection. In addition, the authors described an 11-year-old boy with a persistent arthritis for more than seven months, which was clinically suggestive of juvenile rheumatoid arthritis.

Table 3. Joint Involvement in 40 Adults with Acute Human Parvovirus Infection and Arthropathy

Pain (%)		Swelling (%)
8	Head	0
31	Neck	0
42	Shoulders	4
8	Chest	0
50	Elbows	12
58	Wrists	19
69	Hands	58
8	Hips	0
75	Knees	19
69	Ankles	35

In one controlled clinico-epidemiologic study of 54 adults showing evidence of recent parvovirus infection, approximately 75% experienced pain, joint swelling or both.

Modified from Woolf AD, Campion GV, Chishick A et al. Clinical manifestations of human parvovirus B19 in adults. Arch Intern Med 1989;149:1153-1156.

The current study, although uncontrolled, corroborates the wide spectrum of disease that may be associated with acute parvovirus B_{19} infection in adults.

Clinical outcome also may be related to age, immunologic status, and sex in that arthralgia is more common in women than in men and significant arthritis is unusual in children but not rare in adults.

Children characteristically have little if any morbidity with the virus, and in fact the rash is often confused with heat rash in the well-appearing child. It would appear, however, from the literature cited, that infection in adults is usually symptomatic. Although nonspecific influenza-like symptoms may be most common, arthralgia occurred in 59 percent of the women and 30 percent of the men in the clinico-epidemiologic study cited.

Infection occurring in pregnancy has resulted in fetal death, spontaneous abortion, and hydrops fetalis.[19] Nevertheless, it has been estimated that the risk of fetal death (after exposure of pregnant women to fifth disease at daycare centers or within households) is probably no greater than one to two percent.[20] Moreover, case control studies suggest that parvovirus is an uncommon cause of fetal death in the general population.[21]

Chronic B_{19} infection of red blood cell precursors in immunocompromised patients leading to severe refractory anemia has been described in a number of clinical situations including acute leukemia, bone marrow transplantation, congenital immunodeficiency, and AIDS.[22] Intravenous immunoglobulin therapy has been palliative in at least one patient.[23] For a summary

Table 4. Human Disease Associated with Parvovirus B_{19}

	Frequency
Fifth Disease	very common
Acute arthralgia/arthritis	common
Chronic arthritis	??
Disease of the fetus (especially hydrops fetalis)	uncommon
Transient aplastic crisis in those with chronic hemolytic anemia	The common cause of aplastic crisis in this setting
Refractory anemia in the immunocompromised individual (may be responsive to IV immunoglobulin)	very rare

of diseases with which the virus has been associated in humans, see Table 4.

It is of interest that in the five cases reported herein, three had a personal or family history of rheumatic disorder. Two of the individuals themselves had a prior history of rheumatic fever, and one of the individuals had a family history of rheumatoid arthritis. In a previous study, two-thirds of individuals with persistent arthritis following human parvovirus infection were HLA-DR positive, compared to approximately one-third in a control population.[24] Thus, an underlying genetic predisposition to arthritis may be present.

Although elevation of the sedimentation rate, as seen in the current report, has been noted with acute parvovirus infection, few other laboratory abnormalities have been noted in the literature. In at least one case in the literature in which arthrocentesis was performed, the synovial fluid was described as being lymphocytic, with approximately 15,000 white cells per milliliter.[25]

In the current report, one of the individuals described had modest elevation of liver transaminases and alkaline phosphatase (Table 1), which subsequently normalized, with the absence of serologic evidence for classic hepatitis A or B. This patient also underwent a skin biopsy of her rash (upper arm) which was histologically "consistent with urticaria."

Although the literature describes four cases of rheumatoid arthritis, the onset of which was concurrent with serologic evidence of recent parvovirus B_{19} infection, the presence of rheumatoid factor in these cases seems to have been transient in most, and any casual relationship remains speculative.[26]

The pathophysiology of human parvovirus-induced arthritis is far from clear. Although there is one case report of human parvovirus B_{19} DNA (using the Dot-Blot hybridization technique) in the synovial fluid of a patient with acute arthritis of the right knee,[27] most speculation has centered around an immunopathologic etiology for the arthropathy,[28] and this would seem to be most consistent with the human experimental data previously cited.

References

1. Anderson MJ, Kidd LE, Kidd IM, Hall SM, Cohen BJ. An outbreak of erythema infectiosum associated with human parvovirus infection. J Hygiene 1984;93:85-93.
2. Plummer FA, Hammond GW, Forward K et al. An erythema infectiosum-like illness caused by human parvovirus infection. N Engl J Med 1985;313:74-79.
3. Greenwald P, Bashe WJ. An epidemic of erythema infectiosum. Am J Dis Child 1964;107:30-34.
4. Balfour HH. Erythema infectiosum. Clin Pediatr (Phila) 1969;8:21.
5. Anderson LJ, Tsou C, Parker RA, Chorba TL, Wolff H, Tattersall P, Mortimer PP. Detection of antibodies and antigens of human parvovirus B_{19} by enzyme-linked immunosorbent assay. J Clin Microbiol 1986;24:522-26.
6. Anderson MJ, Pattison JR. The human parvovirus. Arch Virol 1984;1982:137-48.
7. Siegl G, Berns KI, eds. The Parvo Viruses. New York: Plenum, 1984:297-362.
8. Ingram DG, Cho HJ. Aleutian disease in mink: Virology, immunology and pathogenesis. J Rheumatol 1974;1:74.
9. Simpson RW, Smith CA, Godzeski. Association of parvoviruses with rheumatoid arthritis of humans. Science 1984;224:1425-27.
10. Cossaryt YE, Field AM, Cant B. Parvovirus-like particles in human sera. Lancet 1975;1:72-73.
11. Cohen AJ, Mortimer PP, Periera MS. Diagnostic assay with monoclonal antibodies for the human serum parvovirus-like virus. J of Hygiene 1983;91:113-30.
12. Pattison JR, Jones SE, Hodgson J, Davis LR, White JM, Stroud CE, Murtaza L. Parvovirus infections in hypoplastic crisis in sickle cell anemia. Lancet 1981;1:664-65.
13. Anderson MJ, Pattison JR. The human parvovirus: Brief review. Arch Virol 1984;82:137-48.
14. Anderson MJ, Higgins PG, Davis LR et al. Experimental parvoviral infection in humans. J Infect Dis 1985;252:257-65.
15. Anderson MJ, Jones SE, Fisher-Hoch SP. Human parvovirus, the cause of erythema infectiosum? Lancet 1983;1:1378.
16. Reid DM, Brown T, Reid TMS, Rennie JAN. Human parvovirus-associated arthritis: A clinical and laboratory description. Lancet 1985;1:422-25.
17. White DG, Mortimer PP, Blake DR, Woolf AD, Cohen BJ, Bacon PA. Human parvovirus arthropathy. Lancet 1985;1:419-21.
18. Woolf AD, Campion GV, Chishick A et al. Clinical manifestations of human parvovirus B19 in adults. Arch Intern Med 1989;149:1153-56.
19. Mortimer PP, Cohen BJ, Buckley MM et al. Human parvovirus in the fetus. Lancet 1985;2:1012.
20. Centers for Disease Control. Risks associated with human parvovirus B19 infection. MMWR 1989;38:81-88, 93-97.
21. Bond PR. Intrauterine infection with human parvovirus. Lancet 1986;1:448-49.
22. Anderson LJ. Human parvoviruses. J Infect Dis 1990;161:603-608.
23. Kurtzman G, Fricehoffer N, Kimbell J, Jenkins DW, Nienhuis AW, Young NS. Pure red cell aplasia of ten years' duration due to persistent parvovirus B19 infection and its cure with immunoglobulin therapy. N Engl J Med 1989;321:519-23.
24. Klouda PT, Corbin SA, Bradley BA. HLA and acute arthritis following human parvovirus infection. Tissue Antigens 1986;28:318-19.
25. Smith CA, Woolf AD, Lenci M. Parvoviruses: Infections and arthropathics. Rheum Dis Clin North Am 1987;13:249-63.
26. Cohen BJ, Buckley MM, Clewley JP et al. Human parvovirus infection in early rheumatoid and inflammatory arthritis. Ann Rheum Dis 1986;45:832-38.
27. Dijkmans BAC, van Elsacker-Niele AMW, Salimans MMM. Human parvovirus B19 DNA in synovial fluid. Arthritis Rheum 1988;31:279-80.
28. Balfour HH. Fifth disease and arthritis: Common immune-mediated response to parvovirus infection. NY State J Med 1986:556-57.

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MRI UPDATE

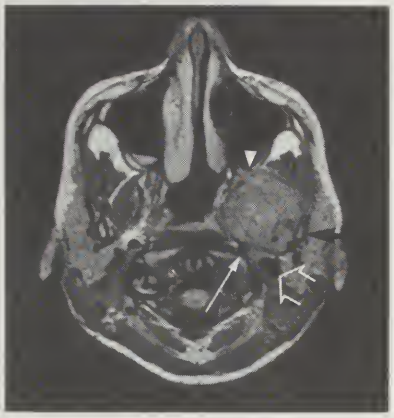


Figure 1

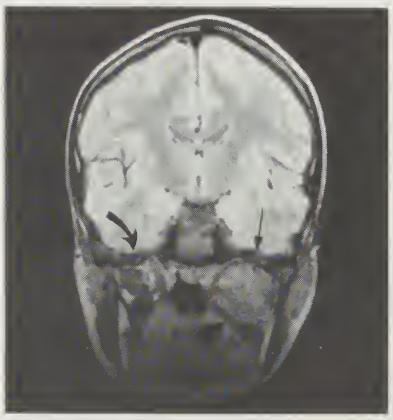


Figure 2

CLINICAL INFORMATION: This is a 14-year-old male with headache and left jaw pain.

FINDINGS: The axial image (figure 1) demonstrates a 4 cm. mass centered in the left parapharyngeal space. It deforms the left nasopharyngeal wall, but the fat plane between the nasopharyngeal wall and the mass indicates that the mass did not arise from epithelium there. The mass extends anteriorly through the pterygopalatine fossa to abut the posterior wall of the maxillary sinus (arrowhead), but it does not appear to invade the sinus. The mass extends laterally adjacent to the neck of the mandibular condyle (large arrow). It is separated from the deep lobe of the parotid by the deep branch of the facial artery. The mass is separated by fat from the internal jugular vein (open arrow). It abuts, but does not encase the internal carotid artery (long arrow). The coronal image (figure 2) demonstrates the mass effect of this large lesion (large arrow). Though the mass lies adjacent to the foramen ovale (small arrow) and appears to engulf an exiting branch of the mandibular nerve, it does not extend intracranially. The mandibular division of the fifth nerve lying just above the foramen ovale is shown on the normal right side (curved arrow).

COMMENT: MRI clearly demonstrates the size and extent of the mass in this difficult location. CT does not provide the multiplanar capability and soft tissue detail afforded by MRI which provides complete presurgical staging and analysis. The differential diagnostic possibilities must include juvenile angiofibroma because of the patient's age and sex. Paraganglioma and schwannoma were also considered possibilities. Mixed tumor arising from the deep lobe of the parotid could produce this appearance, but the lesion appeared to be separate from the deep lobe. The biopsy diagnosis was "sarcoma". Rhabdomyosarcoma in this area more commonly occurs in younger children.

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Cervical Spondylosis: A Therapeutic Update

Kenneth J. Murray MD, PhD; Albert H. Dudley, III MD and Howard Moses MD

From the Departments of Surgery and Medicine, Greater Baltimore Medical Center, where Dr. Murray is a neurosurgeon and neuro-oncologist, Dr. Dudley is an orthopaedic surgeon, and Dr. Moses is a neurologist.

Cervical spondylosis, also known as cervical osteoarthritis, is a common spine condition whereupon bone spur formation occurs.

Cervical spondylosis, also known as cervical osteoarthritis, is a common spine condition whereupon bone spur formation occurs. It is estimated that the central portion of the disc separating the vertebrae begins to show signs of deterioration in the third decade of life. Disc softening results in loss of the cushion effect between vertebral surfaces. This results in the narrowing of the interspace, allowing the vertebral surfaces to approach each other. With continued daily activity, osteophytes (bone spurs) can form and grow in size (Figure 1). Cervical osteoarthritis is extremely common and in most cases does not require surgery. Typical symptoms include neck and arm pain; numbness and weakness may follow. If the osteophyte is large enough, it can become centrally located and produce symptoms of spinal cord compression affecting leg mobility, including proximal leg weakness, spasticity, Babinski signs, and sensory impairment (Figure 2A). Osteophytes will continue to become more prevalent as individuals live longer. Sometimes existing spurs may not become symptomatic unless minor or major trauma occurs.

When neck and arm pain are present, medical therapies are employed in order to minimize vertebral body contact; a cervical collar is used to immobilize the cervical spine. In addition, muscle spasm, secondary to nerve root irritation, can be treated with physical therapy, muscle relaxants and anti-inflammatory agents. Typical time frames for treatment are 4-6 weeks. Cervical traction can be helpful at times, although some patients become more symptomatic. Cervical spine x-rays are essential in order to rule out associated fracture or infection. In addition, dynamic views are important in order to exclude vertebral body subluxation. Surgery is not required if there is less than 3mm of movement between vertebral surfaces.

The common triad of symptoms are pain, paresthesia, and weakness. Typically, as the nerve root recovers, the pain pattern improves, strength tends to be restored secondly, and last to improve is numbness. Often, facet injections, trigger point injections, and myofascial injections are helpful in supplementing the overall medical therapies.

In circumstances where patients show progressive neurological symptoms including progressive weakness, adjunctive tests become important. The MRI scan of the cervical spine has become a useful diagnostic tool. Improved resolution has permitted better visualization of the cervical spine axis, depicting the spinal cord, nerve root, disc material, and osteophyte formation, as well as providing precise measurements of the spinal canal and foramen. These observations permit a more scientific evaluation of patients who may need treatment. Basically, any patient with profound spinal canal stenosis who has failed medical therapy, would be a probable surgical candidate.

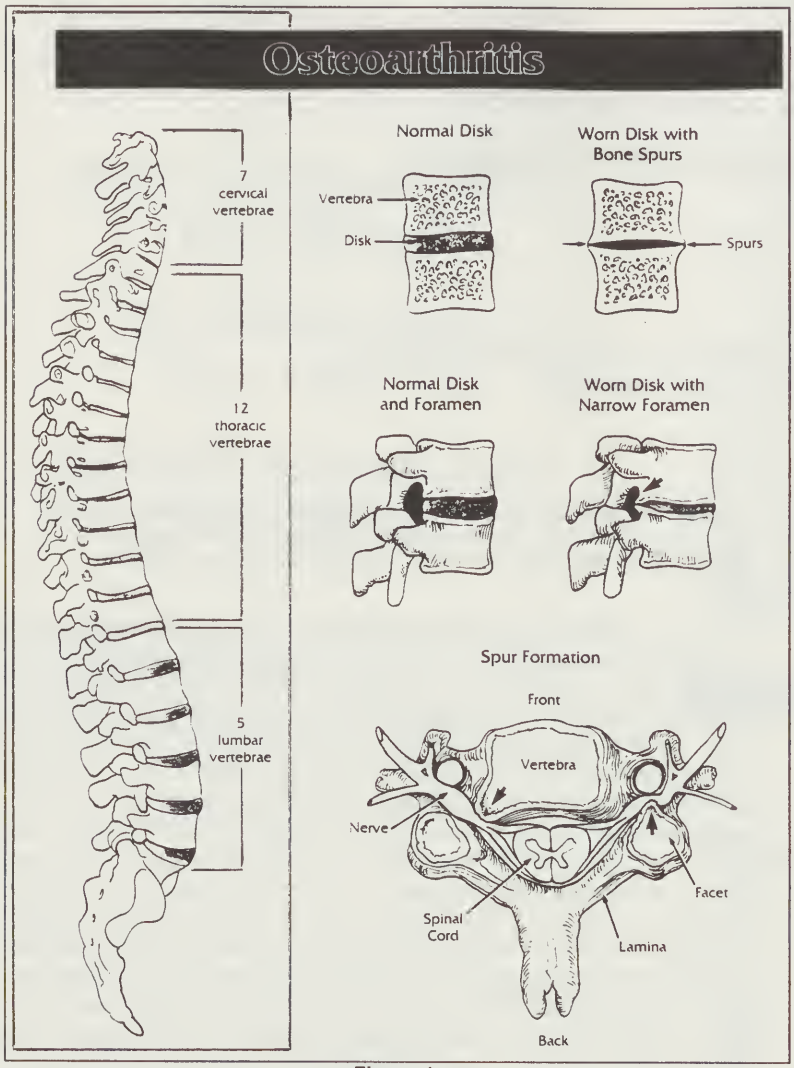


Figure 1.

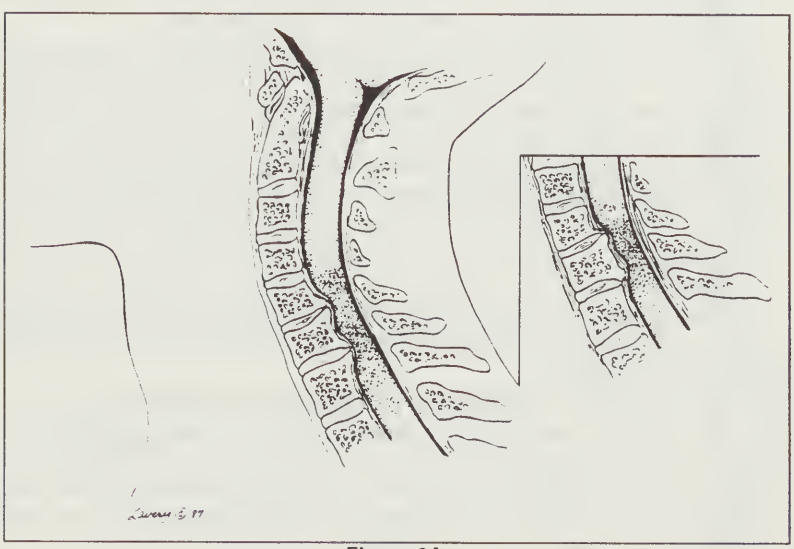


Figure 2A.

Traditionally, cervical laminectomies have been employed in the past by neurosurgeons in order to achieve decompression of the spinal canal by way of the posterior approach (Figure 2B). Because osteophytes are located on the anterior aspect of the spinal cord, laminectomy alone is not a direct surgical therapy for removing these compressive forces. The most direct treatments are the anterior operations described by Drs. Smith and Robinson,[1] and Dr. Cloward[2] in the 1950s. Their surgical approaches to the anterior aspect of the neck involved diskectomy, followed by fusion (Figures 2C and 2D, respectively). Because of limited visualization, vertebral osteophytes could not be routinely removed using these techniques. The Smith/Robinson procedure, however, proved to be extremely valuable in the surgical treatment of cervical spondylosis. Fusion alone prevented progressive osteophytic build-up since vertebral interspaces could no longer rub together. Unfortunately, the procedure itself did not consistently produce improved spinal cord function, although oftentimes, neck and arm symptoms were alleviated. Radiculopathy improved because the bone graft itself was oversized, as compared to the previous disc interspace, thus allowing increased height for the foramen and, subsequently, providing more room for the nerve as it exited the spinal canal. However, central compression did not generally improve.

In 1984, at Greater Baltimore Medical Center, a modification of the original Smith/Robinson operative procedure began to improve this methodology. During the past six years, approximately 478 patients have been treated using this improved surgical approach. The Murray/Dudley procedure consists of the use of a microscope and a high-speed diamond drill in order to directly excise osteophytes from the surface of the spinal canal (Figure 3A). Precise measurements are acquired by way of high-resolution CT scan myelograms. Osteophytic compression in a three-dimensional analysis can there-

fore be measured by CT scan myelography and applied at surgery. Because osteophytes are portions of the vertebral body, subtotal or total vertebrectomies are required. In most cases, the osteophyte resides at the inferior portion of the rostral vertebrae and the superior portion of the caudal vertebrae. Conventional diskectomy is performed in order to perform osteophytectomy. Direct visualization of the spinal canal occurs during resection of bone spurs and allows spinal cord decompression. The skeletal axis is then reconstructed by use of iliac bone struts tailored to fit the resected space created by vertebrectomy (Figure 3B). In over half of cases, patients harbor osteophytes at 2 disc interspaces. Large osteophytes require total vertebrectomy in order to fully decompress the spinal canal.

Clinical improvement of patients having cervical spondylotic myelopathy can be consistently accomplished with use of this operative approach. Pain improvement postoperatively was assessed by asking patients if they were satisfied with their surgeries from a pain standpoint. In addition, all patients were examined pre- and postoperatively by a medical neurologist and improvement was assessed by objective testing. The Table depicts patient improvement in 458/478 surgeries, i.e., 96 percent. Only one bone graft in this series failed to fuse. Average hospital stay is one to three days. Lightweight cervical collars are required for periods of ten to twelve weeks. Blood transfusion is rarely needed. Pain following surgery is minimal, and elderly patients tolerate the procedures well. Operating time averages 1.5 to 2.5 hours, depending on the number of levels involved in spinal cord compression.

In summary, cervical spondylosis is a common osteoarthritic condition which sometimes requires surgical therapy. The Murray/Dudley operative procedure has proven to be a useful surgical treatment for patients with this condition by reversing neurological deficits.

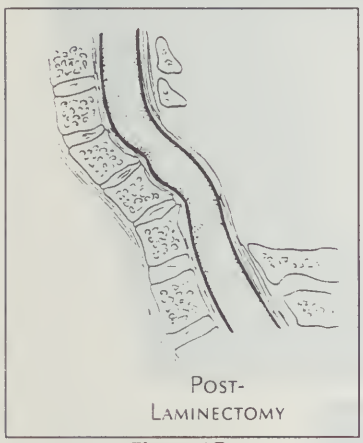


Figure 2B.



Figure 2C.



Figure 2D.

References

1. Robinson RA, Smith GW. Anterolateral cervical disc removal and interbody fusion for cervical disc syndrome. Bulletin of The Johns Hopkins Hospital 1955;96:223.

2. Cloward RB. The anterior approach for removal of ruptured cervical disks. J Neurosurg 1958;15:602.

Table. Surgical Improvements after Surgery

# Total Patients	478
# Improved after surgery	458
# Males	237
# Females	241
Age range	18 - 94 years
# Successful fusions	477

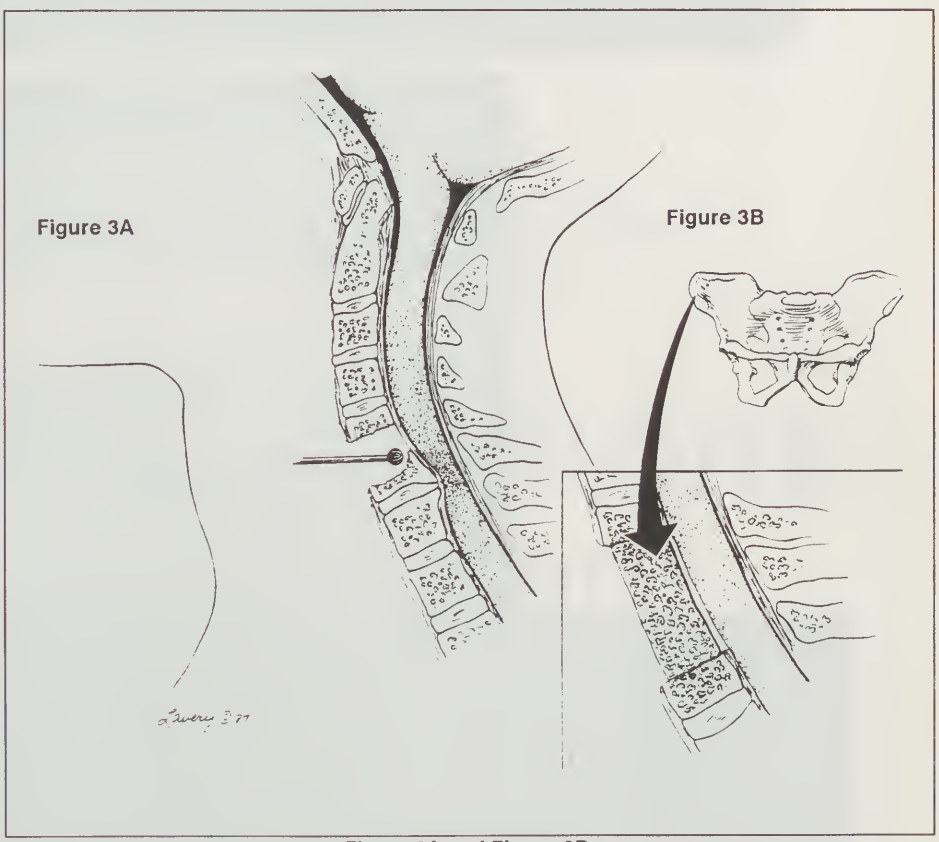


Figure 3A and Figure 3B.


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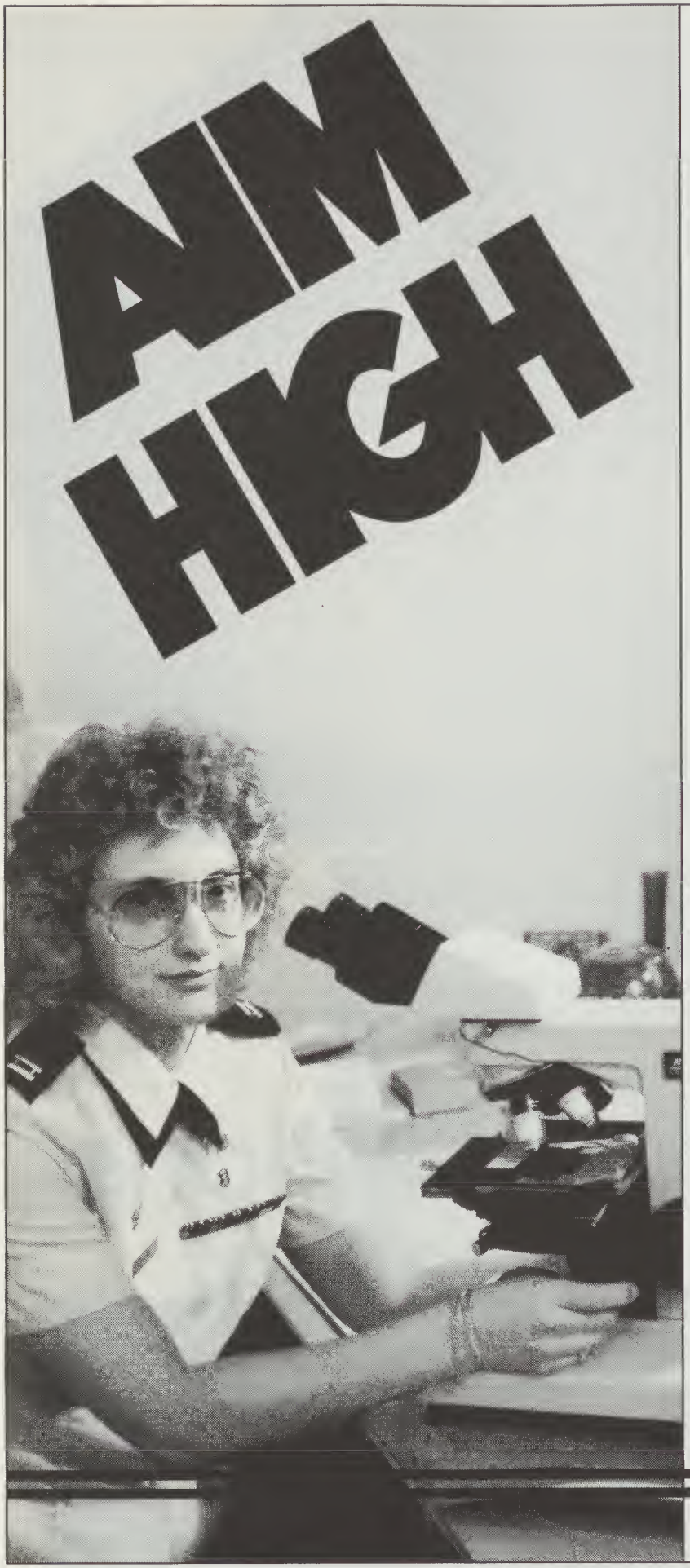
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AIR FORCE

Role of the Community Hospital in Cancer Research

Gary I. Cohen MD and Margaret Tillett RN, OCN

Dr. Cohen is Director of the Cancer Center, and Margaret Tillett is a research oncology nurse at Greater Baltimore Medical Center.

We review here the historical development, rationale, and advantages of community hospital participation in controlled clinical trials, the primary source of reliable advances in the management of patients with cancer.

In 1971, President Richard M. Nixon declared war on cancer. Almost 15 years later, evaluation of data in the Surveillance, Epidemiology and End Results (SEER) program of the National Cancer Institute (NCI) showed that there had been no significant impact on the overall age-adjusted mortality rate in patients with cancer.[1] Despite this study, the impression of most oncologists is that great progress has been made. In fact, several cancers can be cured even in late stages with the use of chemotherapy.[2] Other advancements have been made in surgical techniques, radiation therapy, and methods of detection.[3] However, there has been no significant improvement in the diagnosis and treatment of the most common cancers, and this may have prevented any overall impact on cancer survival statistics. The NCI recognizes the importance of clinical trials in determining the optimal management of patients with cancer.[4] Traditionally, such research studies have been initiated and completed by major university centers. However, in 1990, 80 to 85 percent of patients with cancer are being treated in community hospitals.[5] The NCI has recognized that this patient population represents an important resource for accrual in clinical trials. Support from the NCI has resulted in the establishment of community clinical oncology programs (CCOPs), and numerous regional and national cooperative groups. The community hospital has become the centerpiece of data-generation for new clinical studies in cancer patients. Participation by oncologists at these institutions has exceeded expectations.[6,7] The opportunity for research into new aspects of cancer care should continue and flourish in the community hospital within the 1990s.

History and Status of Clinical Trials in Oncology

One of the first randomized controlled clinical trials in the medical literature was published in 1948 on the use of streptomycin for the treatment of tuberculosis. The results of the first clinical trial in cancer patients was published approximately ten years later. The National Surgical Adjuvant Breast Project (NSABP) was formed in the mid-sixties and became one of the first coopera-

tive oncology groups. The NSABP has completed numerous studies on the value of adjuvant therapy on breast cancer and colon cancer utilizing community physicians as the basis for entry of patients onto studies. The success of this cooperative group serves as a model for other national and regional groups to expand into the community setting.

Oncologists in clinical practice have the option of affiliating with numerous national protocol groups. The Eastern Cooperative Oncology Group (ECOG), Southwestern Oncology Group (SWOG), Radiation Therapy Oncology Group (RTOG), and Cancer and Acute Leukemia Group B (CALGB) are several of the more than 20 groups which have successfully transported their protocols to community hospitals. New groups originating in community hospitals have been formed. The North Central Cancer Treatment Group (NCCTG) initiated a pilot study using 5 FU and Levamisole for adjuvant therapy of resectable colon carcinoma.[8] This study was primarily conducted in nonteaching hospitals and showed a significant advantage for chemotherapy treatment following resection of colon cancer. The study was later repeated in a larger group of patients by the Mayo Clinic, and the results were identical.[9] In the report of this cooperative group trial published in the *New England Journal of Medicine*, the authors give credit to the developing role of nonuniversity hospitals in the treatment of cancer patients in the community setting.

Research Studies in Community Hospitals

Clinical protocols from national cooperative groups usually represent state-of-the-art therapy for malignancies. The development process for clinical protocols involves several levels of input ranging from full-time academicians to community physicians, nurses, statisticians, and protocol administrators.[10,11] Participation in protocol groups also establishes a direct link between researchers and clinicians for the rapid flow of new ideas and technology. Several studies have shown that patients who enter protocols receive better treatment and survive longer than non-protocol patients. Protocol patients from community hospitals do just as well as those at universities.[6,7] By extension, community hospitals which are involved in clinical studies should be providing a higher quality of care than nonaffiliated hospitals.

Despite some advantages for patient care, protocol therapy represents a liability to some practicing oncologists in the community. Busy practitioners have been reluctant to enter patients on clinical protocols because of the excessive time constraints of reviewing the study parameters and fully informing the patient regarding the treatment options.[12] Most protocols have extensive pretreatment requirements which must be fulfilled and may also have a randomization phase. More than 50 percent of patients may be disqualified because of protocol exclusions, such as abnormalities in laboratory tests, other concurrent medical illnesses, or timing of various pretreatment studies.[7] Patients may not readily understand the concepts of randomization and may refuse entry onto studies. Protocols usually include follow-up studies subsequent to the primary treatment in order to assess survival and long-term effects, and to accurately evaluate recurrence. In some cases, protocols may even demand studies not ordinarily required in the private practice setting, leading to increased costs of medical management and, in some cases, refusal of third-party payors to fund the costs of patient care for study participants.

Hospitals must make a financial commitment to facilitate entry of patients onto clinical studies. A data coordinator and a nurse oncologist who are familiar with treatment protocols and potential toxicities are an essential part of the oncology team. Data from the Association of Community Cancer Centers (ACCC) indicate that, over the past year, more than half of their member institutions placed 20 to 40 patients on protocols.[5] Almost half of ACCC member hospitals under 200 beds and 34 percent of 200 to 400 bed hospitals qualified for funds from the NCI under the CCOP program. However, recent funding constraints of the NCI may threaten the viability of some CCOP programs, jeopardizing data collection on thousands of potential protocol patients.

Role of the IRB

The institutional review board (IRB) serves a valuable purpose in reviewing studies for scientific merit and informed consent. The composition of a valid IRB is explicitly outlined by guidelines of the National Institutes of Health (NIH). Participation in an IRB is a time-consuming effort but is an essential ingredient of transporting research from academic centers to suburban hospitals. Every clinical research protocol has inherent liabilities related to justification of human experimentation. Most randomized clinical trials compare the relative merits of two accepted treatments for a given malignancy, but some protocols test new drugs which are not yet approved by the Food and Drug Administration (FDA). The scientific merit of these studies must be reviewed by both medical and lay members of the hospital community to be certain that the design is valid and acceptable, and that patients are fully informed about the benefits and potential risks.

Informed consent is essential to maintain human dignity in research studies. Patients are overwhelmed with complicated information and new terminology at a time when they are under immense stress due to the diagnosis of cancer. We expect them to make difficult decisions while they are trying to cope with drastic changes in lifestyle. All professionals involved in clinical trials are responsible for assessing patient comprehension.[13,14] This may be extremely difficult in randomized trials which assign patients to treatment or no-treatment arms. Yet, these studies are extremely important in determining the value of a specific therapy. Patients and physicians alike are often biased

toward a specific therapeutic approach prior to the establishment of proven efficacy. Decisions regarding scientific merit, study design, and eligibility involve not only scientific but also ethical considerations. These complex deliberations are often unfathomable to the patient who becomes a willing participant in a clinical trial, but medical investigators carry the responsibility of assuring that the patient understands the information he or she is given.[11-14]

Opportunity for Cancer Research in Community Hospitals

Progress in cancer treatment proceeds with small steps. Major advances in the laboratory may enhance our understanding of the neoplastic process but years may elapse before a clinical benefit can be derived. The major focus of research in the clinical setting is the procurement of new chemotherapy agents and the identification of new combination regimens. New drugs are being developed which have improved cytotoxicity, better selectivity for cancer cells, and decreased toxicity. In addition, oncologists now recognize the usefulness of multiagent chemotherapy which takes advantage of additive or synergistic effects. New methods of administration of chemotherapy drugs, and changes in schedule and dosimetry have also resulted in improved response rates for some cancers.[2]

More than 15,000 potential chemotherapy agents are patented every year.[15] However, most of these drugs are unsuitable as antineoplastic agents. Extensive preclinical testing is employed to identify those compounds which have potential cytotoxicity for cancer cells, with acceptable clinical toxicity. Only a handful of new drugs are brought to the clinic each year for further testing in humans.[15,16] The FDA has established three phases of clinical studies on human subjects in order to determine whether new drugs should be licensed as antineoplastic agents.

The first phase is purely for pharmacologic study in humans. These studies are usually performed on a limited number of patients who have previously been heavily treated with other chemotherapy agents and who have no other reasonable therapy available for their malignancies. Biochemical studies are usually performed to determine the drug half-life, bioavailability, and pharmacokinetics. Toxicity is carefully observed, and the acceptable dose for human subjects is determined. In Phase I studies, responses are not expected, and the only goal is to identify the maximum tolerated dose in man.[11]

Phase II studies are limited to patients with a specific type of malignancy who are treated with the standard dose determined in the Phase I studies. The goal is to determine the efficacy of new chemotherapy drugs. The patients have usually been treated less extensively in the past but still have tumors for which there are no known alternative effective treatments. Patients must have disease which is measurable (for example, an enlarged lymph node or pulmonary metastasis) so that response can be evaluated.

In the third phase of study leading to FDA approval, new drugs are used either alone or in combination with other agents and are compared to similar combinations with known effectiveness in randomized studies.

Community hospitals commonly participate in Phase III studies through national and local cooperative groups. Similar studies can reasonably be initiated and completed by well-trained oncologists in the community setting. Phase II studies are also occasionally performed by the national protocol groups. However, the early use of experimental agents requires careful screening of pharmacy and other hospital-related personnel to assure that appropriate dosing and reporting of toxicity are achieved.[7,10,12] Phase I studies are, therefore, usually carried out in university settings that have a specific interest in pharmacology and such studies should not be performed in most community hospitals (Table 1).

Role of the Nurse Oncologist

Thirty years of clinical trials have produced a large body of scientific knowledge. The role of the oncology nurse has advanced from bedside care to include administration of chemotherapy drugs, data collection, and more recently, research as an independent investigator.[16] The expanded role of nurses into clinical research incorporates skills of observation, assessment, and education, but maintains the important mandate as patient advocate. In this dual role as advocate and investigator, the oncology research nurse has the unique responsibility of assuring strict adherence to the protocol design, while monitoring the study for violations of human rights.[17]

Community hospitals which are committed to high quality care must employ oncology nurses for direct patient care. An ongoing program to educate the nursing staff regarding problems specific to oncology

Table 1. Research in the Community Hospital

Type of Investigation	Purpose	Adaptability to the Community Hospital
Phase I	Determination of maximum tolerable dose of experimental agent.	not usually
Phase II	Determination of effectiveness of new drug.	only as part of group trial
Phase III	Comparison of new drug with "standard"	YES
Pharmacology	New combinations of approved drugs	YES
	Pilot programs on new methods of administration	YES
	Testing of unapproved uses of FDA approved drugs (off label use)	YES
Technology	Testing effectiveness of new devices	YES

patients is also essential to assure effective cancer therapy in community hospitals.

Other Studies

In addition to studies on new cancer drugs, the community hospitals are well positioned to evaluate the effectiveness of palliative care. One advantage of community hospitals is their proximity to the population they serve. They can, therefore, specifically cater to various social and religious needs unique to their patient population. The ability to treat patients in a warmer, more intimate, nonacademic setting is a benefit for some terminally ill patients. Community hospitals are appropriately involved in new programs such as hospice, home infusion, and social support groups but must also take the lead in determining the effectiveness of these enterprises.

New programs to evaluate prevention of cancer by altering dietary habits, or by the use of medications (retinoids, carotenoids), or by promotion of effective screening programs to detect cancer, will require tens of thousands of patients followed for five to ten years. Therefore, these programs must be administered by local hospitals to assure appropriate accrual and follow-up.

Evaluating New Technology

Cancer medicine has become a technology-intensive specialty. New catheters and subcutaneous implanted ports permit long-term infusional therapy. Treatments which previously required extended inpatient hospitalization can now be effectively given to outpatients. Regional chemotherapy into arteries can be given using implantable subcutaneous pumps requiring filling every two to four weeks. Intractable pain can now be managed at home using continuous morphine subcutaneously or even by the intraspinal route. Monoclonal antibodies have been developed with greater selectivity for antigens on neoplastic cells. These antibodies can be used to follow the progress of cancer as serologic tumor markers, or they can be tagged with radiopharmceuticals to aid in the detection of residual disease. Conjugates of antibodies and cytotoxins may act as a magic bullet to attack neoplastic cells with lethal substances. New laboratory studies to evaluate prognostic factors (for example, flow cytometry) are easily performed in community hospitals. Lymphocyte subsets which specifically attack cancer cells can now be isolated, programmed for toxicity, and reinjected into patients.

Advances in technology can easily be tested in community hospitals. In fact, nonacademic hospitals are the most logical site to evaluate the overall impact of new discoveries on cancer care as administered by community physicians.

Research Assures Standard of Care

The most compelling reason for community hospitals to participate in oncology research is to further our knowledge about effective cancer therapy. However, assurance of a high standard of care is clearly an important secondary benefit. Protocols are designed by multidisciplinary teams of cancer specialists. National cooperative group protocols outline initial studies, specific treatments, modifications of treatment on the basis of toxicity, objective assessment of patients' response, and follow-up intervals. However, community hospitals should not limit their cancer studies to national protocols but must also emphasize investigation of palliative and supportive care.

Nurses can take an active role as primary investigators in studies designed to improve the quality of patient care. Direct involvement in the early stages of protocol development allows nursing interventions to become incorporated into the original design. In oncology patients, the major goal is to identify nursing interventions that will help to relieve suffering. In many cases, patient education alone may serve this function by improving understanding of the disease process and related symptoms. However, oncology nurses must also take a leading role in evaluating new treatment protocols for symptom management. Fatigue, nausea, vomiting, constipation, and nutritional factors are common problems requiring nursing intervention. Pain control, health education, and stress management are other oncology nursing priorities.[18] These research initiatives are not limited to academic hospitals and can appropriately be performed in community hospitals by motivated nursing personnel (Table 2).

Community hospitals are well-equipped to provide excellent patient care. In this country, new technological advances quickly move into the community hospitals from academic centers. University hospitals will continue to be the major source of new concepts and innovative technology, but these techniques should not be limited to such centers. Well-trained physicians are continually completing fellowships and moving to the community setting. The commitment of community hospitals to research will assure an increasing quality of care for the oncology patient in the community setting.

Table 2. Palliative Care Issues in Cancer Patients in Community Hospitals

Symptom Control	Patient Education
Pain	Stress Management
Nausea & Vomiting	Compliance with treatment
Stomatitis	Management of venous access devices
Nutrition	Management of infusion pumps
Constipation/diarrhea	Behavior modification
Infection	Decreasing cancer risk factors

References

1. Bailar III J, Smith E. Progress against cancer? N Engl J Med 1986;314:1226-32.

2. Bonadonna G. Does chemotherapy fulfill its expectations in cancer treatment. Ann Oncol 1990;1:11-21.
3. Feinstein A, Sosin D, Wells C. The Will Rogers Phenomenon: Stage migration and new diagnostic techniques as a source of misleading statistics for survival in cancer. N Engl J Med 1985;312:1604-608.
4. Cancer control objectives for the nation: 1985-2000. NCI Monogr 1986;No.2:1-105.
5. Mannisto M, Mortenson L, Clune C. Hospital cancer program characteristics. Annual Report 1990: Association of Community Cancer Centers 1990;23-26.
6. Begg C, Carbone P et al. Participation of community hospitals in clinical trials: Analysis of five years of experience in the eastern cooperative oncology group. N Engl J Med 1982;302:1076-80.
7. Koretz M, Jackson P, Torti F, Carter S. A comparison of the quality of participation of community affiliates and that of universities in the northern California oncology group. J Clin Oncol 1983;1:640-44.
8. Begg C. Selection of patients for clinical trials. Semin Oncol 1988;15:434-40.
9. Laurie J, Moertel C, Fleming T et al. Surgical adjuvant therapy of large bowel carcinoma: An evaluation of levamisole and the combination of levamisole and fluorouracil: The North Central Cancer Treatment Group. J Clin Oncol 1989;7:1447-56.
10. Moertel C, Fleming T et al: Levamisole and fluorouracil for surgical adjuvant therapy of colon carcinoma. N Engl J Med 1990;322:352-58.
11. Leventhal B. An overview of clinical trials in oncology. Semin Oncol 1988;15:414-22.
12. Piantadosi S. Principles of clinical trial design. Semin Oncol 1988;15:423-33.
13. Hubbard S. Cancer treatment research: The role of the nurse in clinical trials of cancer therapy. Nurs Clin North Am 1982;17:763-83.
14. Nealon E, Blumberg B, Brown B. What do patients know about clinical trials. Am J Nurs 1985;807-12.
15. Boyd MR. Status of the NCI preclinical antitumor drug discovery screen. In DeVita V, Hellman S, Rosenberg S eds. Principles and Practice of Oncology. Philadelphia: Lippincott PPO Updates 1989;3(10).
16. Wittes RE, Current emphasis in the clinical drug development program of the National Cancer Institute. In DeVita V, Hellman S, Rosenberg S eds. Principles and Practice of Oncology. Philadelphia: Lippincott 1987;1(12).
17. Johnson, Johanna. Clinical trials: New responsibilities and roles for nurses. Nurs Outlook 1986;34(3):149-53.
18. Funkhouser S, Grant M. 1988 ONS survey of research priorities. Oncol Nurs Forum 1989;16:149-53.

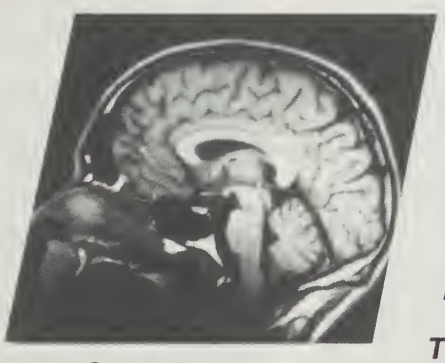
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References

1. USP DI Update, September/October 1988, p 120.
2. Br J Clin Pharmacol 1985;20:710-713.
3. Data on file, Lilly Research Laboratories.
4. Scand J Gastroenterol 1987;22(suppl 136):61-70.
5. Am J Gastroenterol 1989;84:769-774.

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Carcinogenesis, Mutagenesis, Impairment of Fertility—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

Pregnancy—Teratogenic Effects—Pregnancy Category C—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

Pediatric Use—Safety and effectiveness in children have not been established.

Use in Elderly Patients—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

Adverse Reactions: Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

Hepatic—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

Cardiovascular—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

CNS—Rare cases of reversible mental confusion have been reported.

Endocrine—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

Hematologic—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H_2-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

Integumental—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

Hypersensitivity—As with other H_2-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H_2-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

Other—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

Overdosage: Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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Definitive Irradiation Following Breast-Conserving Surgery for Early Stage Breast Cancer

Robert K. Brookland MD and Albert L. Blumberg MD

From the Department of Radiation Oncology, Greater Baltimore Medical Center, where Dr. Brookland is Head of the Division of Gynecologic Radiation Oncology and Dr. Blumberg is Associate Chairman.

Definitive irradiation following breast-conserving surgery for early stage breast cancer can be offered in a community cancer center and achieve excellent local control, survival and cosmesis. The results confirm the validity of patient choice in selecting this breast-conserving modality as an alternative to mastectomy for selected patients with stage I and II breast cancer.

The 1980s ushered in a new era in the management of early stage breast cancer. Increasingly, women are electing to avoid mastectomy, a decision based in part on the growing body of data demonstrating equal local control rates and overall survival when comparing this more radical surgery with breast-conserving surgery followed by radiotherapy. With the creation of the Department of Radiation Oncology at Greater Baltimore Medical Center in 1981, a consistent policy of primary breast irradiation following lumpectomy and axillary dissection was established. This analysis evaluates the results of this policy.

Methods and Materials

Between January 1982 and March 1987, 189 patients received definitive irradiation following conservative surgery for breast cancer. Two patients had metachronous presentation of bilateral breast cancers within this period, giving a total of 191 treated breasts. The median age was 55 years with a range from 36 to 90. Fifty-eight women were premenopausal at presentation, and nine were under 35 years of age. Patient characteristics are listed in Table 1. The histology was predominantly infiltrating ductal carcinoma, seen in 167 patients. Other invasive patterns included medullary (7), colloid (4), tubular (4), and lobular (2). Seven patients had pure intraductal disease without an invasive component. Histological features are presented in Table 2.

Treatment consisted of local excision with removal of all gross tumor. Patients with positive margins generally underwent re-excision of the tumor bed at the time of axillary dissection. Tumor size is outlined in Table 3. The axillary dissection was carried out utilizing a separate axillary incision. In fourteen patients, the axillary dissection was omitted, either due to relative medical contraindications or noninvasive disease. Thirty-nine patients (21%) were found to have axillary nodal metastases. Nodal status of the 177 women undergoing axillary dissection is summarized in Table 4. Ninety-six breast cancers were pathologically categorized as stage I, and 95 were stage II. The estrogen and progesterone

receptor status was evaluated unless specimen size (or rarely, preparation) did not permit accurate analysis. Results are shown in Table 5.

Breast irradiation was usually commenced 3-4 weeks following surgery. Megavoltage irradiation was administered with either Cobalt or 6MeV linear accelerator. Tangential opposed fields delivered a total of 5040 cGy to the entire breast. The tumor bed was boosted in all but four patients, using orthovoltage (19 patients), iridium implantation (54 patients), or electron beam techniques (114 patients). The axilla and supraclavicular fossa were treated to 5040 cGy in patients with invasive disease where the axilla contained metastatic nodal involvement or was unexplored.

Systemic therapy was administered to 40 patients. Thirteen women received hormonal therapy, 22 chemotherapy, and five received both. Although chemotherapy varied, most women received six cycles of Cytoxan, Methotrexate and 5-Fluorouracil with radiotherapy delayed until completion of the systemic treatment. Four patients were treated with Cytoxan and 5FU along with radiotherapy, with four cycles of CMF given upon completion of radiation treatments. One patient received Adriamycin instead of Methotrexate.

Patients were followed for a minimum of 36 months from completion of therapy, with mean follow-up 56 months. Four patients were lost to follow-up. Survival analysis was performed using the product limit method of Kaplan and Meier.[1] Survival figures were dated from time of completion of radiotherapy, and the sample unit was the patient (189 treated). For local control, the unit of analysis was the breast (191 treated). Cosmetic results were scored based on volume and symmetry, degree of resultant edema, fibrosis, and telangiectasia.

Results

Disease Control Local and regional control of disease was achieved in all but seven patients, or 96.4 percent. The breast was the only site of failure in five patients. An additional two patients developed local and distant recurrence in a synchronous fashion. The failure pattern is summarized in Table 6. Size, nodal, and receptor status were not helpful in distinguishing risk for local recurrence. In contrast, the site of first failure was distant in 75 percent of those who failed and, overall, 9.5 percent of our patients ultimately developed disseminated disease. There was a trend for an increased rate of distant failure in patients with large primary size. Node positive women had a 17.9 percent risk of distant failure in comparison to 6.5 percent for node negative patients. There were no isolated axillary failures in our series, including those patients in whom axillary dissection had been omitted.

Survival The five-year probability of survival for the entire study group was 95 percent, while the probability of five-year freedom from relapse was 89 percent. For pathologic stage I and II patients, the five-year survival figures were 96 percent and 95 percent, respectively, with a corresponding five-year survival free of relapse of 92 percent and 86 percent, respectively. Survival curves are illustrated in Charts 1 and 2. Two patients relapsed both in the breast as well as distantly; both have since died. All five of the patients with breast-only failure underwent salvage mastectomy and are currently alive and without evidence of active disease. A total of seven (3.7%) patients have died of their disease and four (2%) have died of intercurrent disease. Twelve patients (6.3%) are currently alive with disseminated disease and are receiving systemic therapy.

Cosmesis Cosmesis was judged to be good or excellent in 81.3 percent of evaluable breasts, fair in 15.9

Table 1. Characteristics of 189 Patients

Age range	36-90 years
<35 years	9 patients
Premenopausal	58 patients
Postmenopausal	131 patients
Bilateral cancer	2 patients
Follow-up range	31-96 months
Mean follow-up	56 months

Table 2. Histology

	Number	Percent
Infiltrating Ductal	167	87
Medullary	7	4
Intraductal (noninvasive)	7	4
Colloid	4	2
Tubular	4	2
Invasive Lobular	2	1
	191	

Table 3. Tumor Size

Size (cm)	Number	Percent
<1 cm	35	18
1 - 1.9	78	41
2 - 2.9	53	28
3 - 4	21	11
4	4	2

Table 4. Nodal Status

Number of Positive Nodes	Number	Percent
0	140	79
1-3	25	14
4	12	7

Table 5. Receptor Status

Estrogen/Progesterone	Number	Percent
+/+	99	52
+/-	18	9
-/+	8	4
-/-	30	16
not known	36	19

Table 6. Failure Pattern

	Number	Percent
Local Only	5	2.6
Local & Distant	2	1
Distant Only	16	8.5

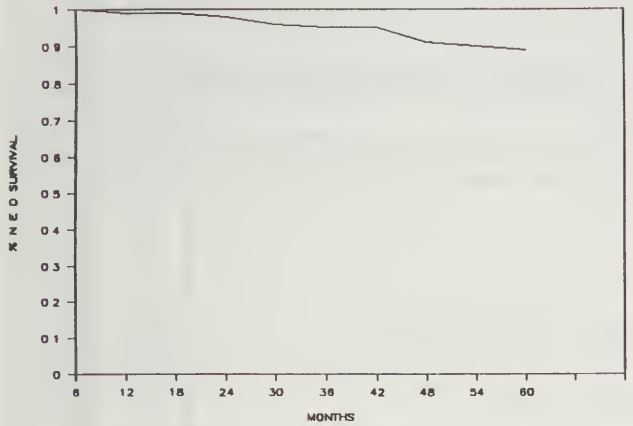


Chart 1. "No Evidence of Disease" Survival

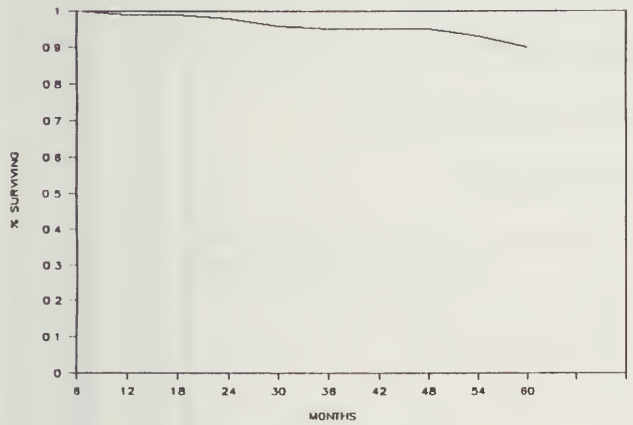


Chart 2. Overall Survival

percent, and poor in 2.7 percent. Further analysis by treatment technique demonstrated a statistically significant difference based on energy used for breast irradiation. While 35.3 percent of patients treated with Cobalt had a fair or poor cosmetic result, this decreased to 8.9 percent for those women irradiated with the 6MeV linear accelerator. A poor cosmetic result was seen in four of five patients (80%) treated with Cobalt therapy.

Complications Therapy was generally well tolerated. Most patients developed the expected acute radiation dermatitis, infrequently associated with a moist desquamation. One patient (0.5%) sustained osteitis with fracture in an irradiated rib. Three patients (1.6%) have experienced painful fibrosis of the breast. This resolved spontaneously in one woman, but two elected to undergo a simple mastectomy for relief of pain. Moderate to marked arm edema was observed in three patients.

Discussion

Over the past five years, several randomized prospective trials[2-4] have established that definitive breast irradiation following conservative surgery is equivalent to the modified radical mastectomy, both in achieving local control as well as in long-term disease-free survival. The impact of improved cosmesis, body image, and sexual function are important criteria not reflected in survival data which may, nevertheless, have a great impact on quality of life.[5-7] In offering this breast-conserving modality to our patients, it is essential to ensure that results of carefully controlled studies can be translated into the community setting without compromising control, cure, or cosmesis.

Our results permit just such a conclusion. Although our mean follow-up is less than five years (56 months), we have achieved a local control rate of 96.4 percent. This compares favorably with other series. Fisher et al[2] reported a 7.7 percent five-year and 10 percent eight-year recurrence rate following segmentectomy and breast irradiation but without a tumor bed boost in the NSABP randomized prospective trial. The series from the Joint Center for Radiation Therapy reported by Recht et al,[8] had a 5 percent and 14 percent failure for stage I and II. Solin et al[9] reported the University of Pennsylvania experience with a 6 percent overall five-year actuarial failure rate. Two randomized prospective trials[10,11] have reported local failure rates following modified radical mastectomy alone for T 1 and T 2 tumors at 10 percent and 21 percent at three and five years, respectively.

The five-year actuarial survival and disease-free survival of 95 percent and 89 percent, respectively, also compares favorably with other reported series. Solin et al[9] reported 93 percent five-year actuarial survival in 548 women and an 81 percent disease-free survival. This is among the best results in the literature. We believe these excellent results are the product of close communication between radiation oncologists, surgeons, and pathologists.

Re-excision of the tumor bed is carried out when there is concern about adequacy of the margins of resection. Careful follow-up has permitted all five patients with breast-only failure in our series to be rendered disease-free with salvage mastectomy.

Cosmetic results in the present series were similar to previous reports. Beadle et al[12] reported good or excellent cosmesis in 86 percent of their 243 irradiated breasts. Dubois et al[13] treated 392 patients and achieved cosmetic results judged by physicians to be good in 80 percent of treated breasts. It has been observed that physicians are more conservative in their scoring of cosmetic results than are patients, who judge the outcome as excellent or good in as often as 90 percent of cases. Again, attention to technical detail is critical in achieving cosmesis.[14]

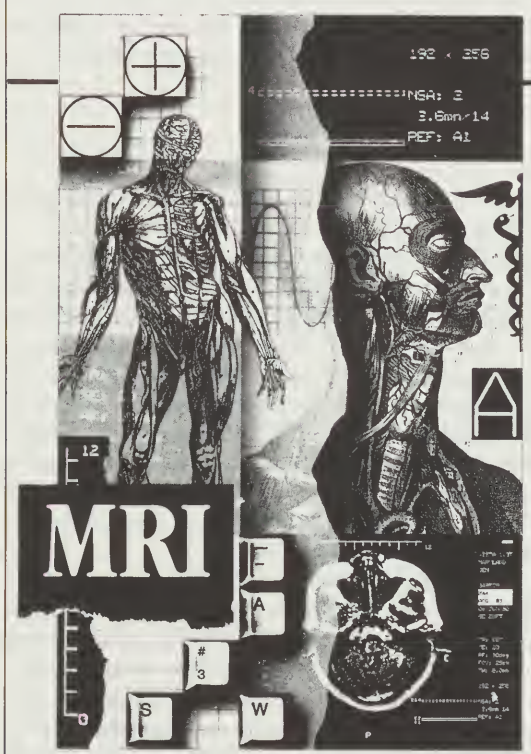
In summary, our study demonstrates that definitive irradiation following breast-conserving surgery for early stage breast cancer can be offered in a community cancer center while achieving excellent local control, survival, and cosmesis. These results are equivalent to those reported at major academic centers and confirm the validity of offering women this breast-conserving modality as an alternative to mastectomy for selected stage I and II breast cancer.

References

1. Kaplan E, Meier P. Nonparametric estimation from incomplete observations. J Am Stat Assoc 1958;53:457-81.
2. Fisher B, Redmond C, Poisson R et al. Eight year results of a randomized clinical trial comparing total mastectomy and lumpectomy with or without irradiation in the treatment of breast cancer. N Engl J Med 1989;320:822-28.
3. Sarrazin D, Le MG, Fontaine MF, Arriagada R. Conservative treatment versus mastectomy in T1 or small T2 breast cancer - A randomized clinical trial. In Harris JR, Hellman S, Silen W eds. Conservative Management of Breast Cancer: New Surgical and Radiotherapeutic Techniques. Philadelphia: JB Lippincott Co. 1983; 101-11.
4. Veronesi U. Randomized trials comparing conservative techniques with conventional surgery: An overview. In Tobias J, Peckham M eds. Primary Management of Malignant Disease Series, London: E Arnold, 1985;131-52.
5. Kemeny M, Wellisch D, Schain S. Psychosocial outcome in a randomized surgical trial for treatment of primary breast cancer. Cancer 1988;62:1231-37.
6. Schain W, Edwards BK, Gorell CR et al. Psychosocial and physical outcome of primary breast cancer therapy: Mastectomy vs. excisional biopsy and irradiation. Breast Cancer Res Treat 1983;3:377-82.
7. Bartelink H, Van Dam F, Van Dongen J. Psychological effects of breast conserving therapy in comparison with radical mastectomy. Int J Radiat Oncol Biol Phys 1985;11:381-85.
8. Recht A, Silver B, Schnitt S et al. Breast relapse following primary radiation therapy for early breast cancer. I. Classification, frequency and salvage. Int J Radiat Oncol Biol Phys 1985;11:1271-76.
9. Solin L, Fowble B, Martz K, Goodman R. Definitive irradiation for early stage breast cancer: The University of Pennsylvania experience. Int J Radiat Oncol Biol Phys 1988;14:235-242.
10 Turner L, Swindell R, Bell WGT et al. Radical versus modified radical mastectomy for breast cancer. Ann R Coll Surg Engl 1981;63:239-43.
11. Maddox WA, Carpenter JT, Laws HL et al. A randomized prospective trial of radical mastectomy versus modified radical mastectomy in 311 breast cancer patients. Ann Surg 1983;198:207-12.
12. Beadle G, Silver B, Botnick L et al. Cosmetic results following primary radiation therapy for early breast cancer. Cancer 1984;54:2911-18.
13. Dubois J, Gary-Bobo J, Pourquier H, Pujol H. Tumorectomy and radiotherapy in early breast cancer: A report on 392 patients. Int J Radiat Oncol Biol Phys 1988;15:1275-1282.
14. Olivotto I, Rose M, Osteen R et al. Late cosmetic outcome after conservative surgery and radiotherapy: Analysis of causes of cosmetic failure. Int J Radiat Oncol Biol Phys 1989;17:747-53. ■

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Physicians' Quality Assurance Board Actions appear regularly in MMJ.



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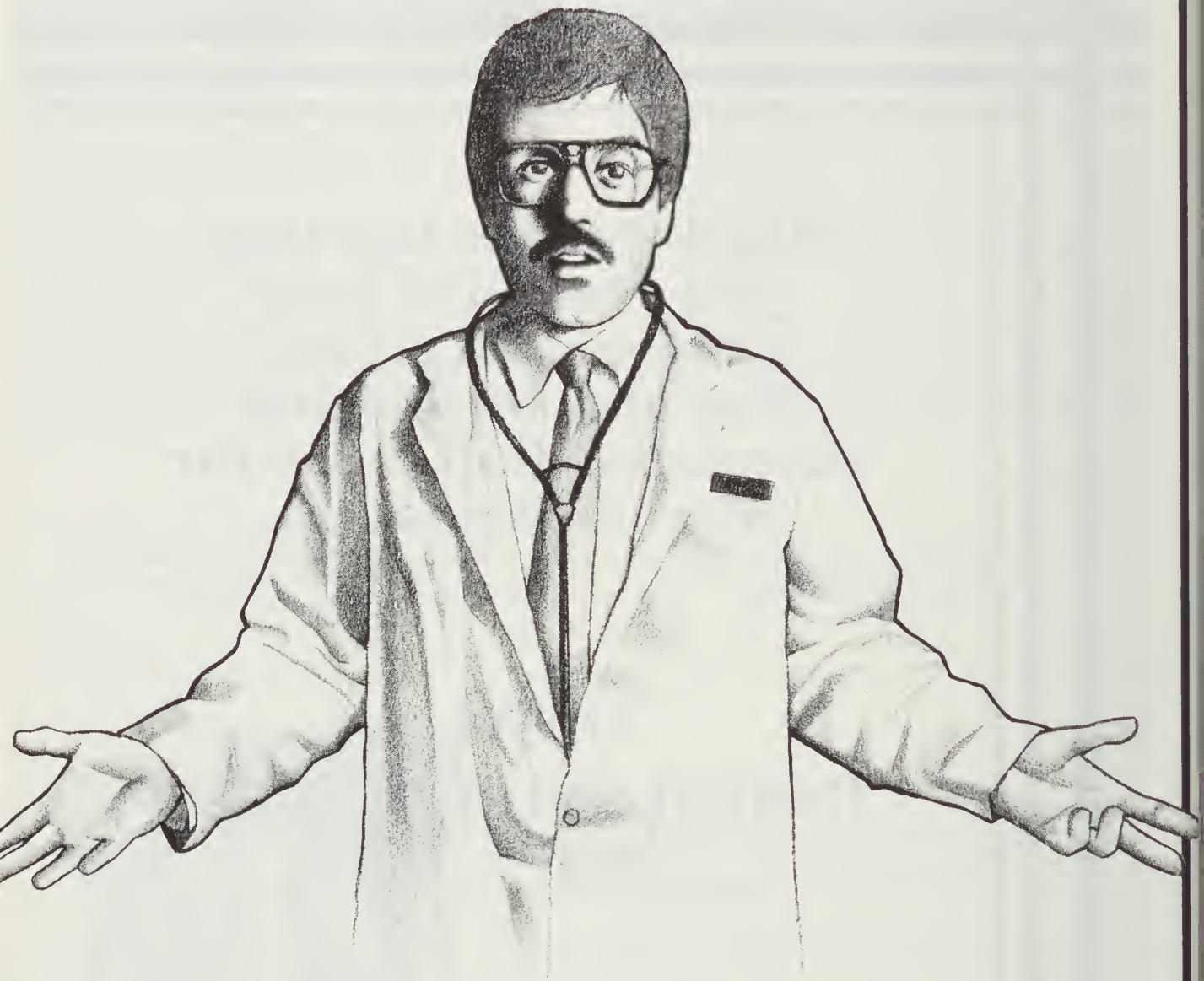
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In the Matter of
James L. Hickey PsA
Before the Maryland Board of
Physician Quality Assurance

Findings of Fact,
Conclusions of Law, and Order

On June 23, 1989, the Maryland Board of Physician Quality Assurance (the Board) issued charges against James L. Hickey PsA (Respondent), a registered psychiatrist's assistant, under Health Occupations Article, Annotated Code of Maryland (H.O.) §14-302, and COMAR 10.32.04. Specifically, the Board charged Respondent as follows:

> Conviction of a crime involving moral turpitude, or the entry of a nolo contendere or guilty plea after having been charged with committing a crime involving moral turpitude; COMAR 10.31.04.02C(2)(c)
>
> Fraudulent or deceitful procurement or use of a registration; COMAR 10.31.04.02C(2)(g)
>
> Willfully making and filing false reports or records in his practice as a psychiatrist's assistant. COMAR 10.31.04.02C(2)(k).

Pursuant to its authority under State Government Article, Annotated Code of Maryland (S.G.) §10-207, the Board delegated its authority to the Hearing Office to hear evidence on the charges. A hearing on the alleged violations was held on February 1, 1990.

At the hearing, the State introduced the following exhibits without objection from Respondent:

> **State Exhibit 1:** Plea Agreement, consisting of four (4) pages.
>
> **State Exhibit 2:** Statement of Facts, consisting of six (6) pages.
>
> **State Exhibit 3:** Criminal Information, consisting of four (4) pages.
>
> **State Exhibit 4:** Docket Sheet, consisting of one (1) page double sided.
>
> **State Exhibit 5:** Charging Documents consisting of twenty-three (23) pages.
>
> **State Exhibit 6:** Respondent's Application to Work as a Psychiatrist's Assistant, consisting of two (2) pages.

The State called no witnesses and submitted its case on its documentary evidence and oral argument.

The Respondent offered no exhibits. Respondent testified on his own behalf and submitted his case based upon that testimony, the State's Exhibits, and his oral argument.

On February 14, 1990, the Hearing Officer issued a proposed Decision, including proposed Findings of Fact, Proposed Conclusions of Law, and a Recommendation to the parties. The parties were advised of their respective rights to file exceptions under S.G. §10-212. By letter dated March 20, 1990, the Board notified the parties that since no exceptions had been filed, the Board would consider the case on April 11, 1990. On April 11, 1990, the Board considered the recommended decision, and on the affirmative vote of a majority of its full authorized membership, the Board issues the following decision.

Findings of Fact

Based on the testimony and exhibits introduced at the hearing, the Board finds on an affirmative vote of a majority of its full authorized membership by a preponderance of the evidence on the charges issued under COMAR 10.31.04.02C(2)(c), (2)(g), and (2)(k) as follows:[1]

1. At all times relevant to this case Respondent was a psychiatrist's assistant registered with the Board.
2. Respondent pled guilty on March 1, 1989 in State of Maryland v. James Lee Hickey, Criminal Number 28904501, Circuit Court of Baltimore City, MD. No appeal was taken.
3. The crime to which Respondent pled guilty was to a one count information which charged Respondent with obstruction of justice in violation of Maryland Annotated Code, Article 27, §27.
4. The criminal information charged that Respondent did knowingly and willfully produce false and altered letters and documents to the Baltimore City Grand Jury and the Medicaid Fraud Control Unit of the Attorney General's Office in response to a subpoena duces tecum issued by the Grand Jury on March 8, 1988.
5. Obstruction of justice is a crime involving moral turpitude involving as it does, in this case, the alteration of documents to deceive a court of law.
6. The Respondent was sentenced, upon his plea, to five years of probation before judgment, on March 1, 1989. Respondent was ordered to perform 400 hours of community service.
7. The Respondent changed medical records, by his own admission.
8. The Respondent's right to practice as a psychiatrist's assistant and to create medical records was based upon his registration with the Board. The alteration of records was a fraudulent and deceitful use of Respondent's registration.

Conclusions of Law

Based upon the Findings of Facts, the Board con-

[1] Although factual findings must be supported by clear and convincing evidence for actions taken under H.O. §§14-504, 14-303, 14-303.1, and 14-303.2, there is no such requirement for actions taken against other allied health professionals. In the instant case, the standard of proof is preponderance of the evidence. The Board also has noted but rejects as not applicable in the instant case, *Everett v. Baltimore Gas and Electric Company*, 307 Md. 286, 513 A.2d 882 (1986). However, assuming *arguendo* that the standard of proof was clear and convincing, that degree of proof has been met.

cludes that Respondent committed the following prohibited acts:

Conviction of a crime involving moral turpitude, or the entry of a nolo contendere or guilty plea after having been charged with committing a crime involving moral turpitude; COMAR 10.31.04.02C(2)(c) and

Fraudulent or deceitful procurement or use of a registration; COMAR 10.31.04.02C(2)(g) and

Willfully making and filing false reports or records in his practice as a psychiatrist's assistant; COMAR 10.31.04.02C(2)(k).

Order

Based upon the aforegoing Findings of Facts and Conclusions of Law, it is this 16th day of July 1990,

ORDERED that Respondent's registration to practice medicine, that is as a psychiatrist's assistant, without being licensed is hereby

REVOKED; and be it further

ORDERED that this is a final order, consisting of eight (8) pages and as such is a public document pursuant to State Government Article of the Annotated Code of Maryland, §10-617(h)(2)(vi).

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

■ ■ ■

In the Matter of
Paul Daniel Miller DO
Before the Board of
Physician Quality Assurance

Order Reinstating License

By Order dated October 16, 1989 (the 1989 Order), the Board of Physician Quality Assurance (the Board) found Paul Daniel Miller DO (the Respondent) guilty of committing prohibitive acts as set forth in Health Occupations Article, Annotated Code of Maryland (HO) §14-504. Specifically, the Board found Respondent guilty of immoral conduct in the practice of medicine and failing to meet the appropriate standards for delivery of quality medical and surgical care HO §§14-504(a)(3) & (22). The Board revoked Respondent's medical license. The Order provided that after June 1, 1990, if Respondent demonstrated to the Board's satisfaction that Respondent had complied with certain recommendations, the Board would entertain a petition for reinstatement of Respondent's medical license. By letter dated June 1, 1990, Respondent petitioned the Board for reinstatement of his license to practice medicine in Maryland. At its meeting on June 27, 1990, the Board reviewed Respondent's petition for reinstatement. Based upon its review of the petition, the Board determined that Respondent had complied with the Board's recommendation contained in the 1989 Order, as follows.

Findings of Fact

Based on the information known and available to it, the Board finds that:

1. Respondent sought counseling and began treatment with Peter M. Hartmann MD in January 1989. Dr. Hartmann forwarded to the Board monthly reports on his sessions with the Respondent. In a reported dated June 7, 1990, Dr. Hartmann indicted that he believes that the therapy with Respondent has been successful. Dr. Hartmann recommended that the Respondent remain in therapy for at least two more years in order to maintain Respondent's progress.
2. Jesse M. Hellman MD, a psychiatrist selected by the Board, met with the Respondent on Wednesday, May 30, 1990 and on Monday, June 4, 1990 for interviews totaling three hours. In the report dated June 10, 1990, Dr. Hellman indicated that he believes that the Respondent will behave in an appropriate manner with his patients in the future, and will not repeat the behavior that led to the revocation of Respondent's license.
3. Respondent arranged to take a tutorial medical ethics course with Timothy J. Keay MD, MA - Theology, Assistant Professor in Division of Geriatrics, Department of Family Medicine, University of Maryland at Baltimore. The course followed the general outline of the Spring Medical Ethics Course taught to second-year medical students. Dr. Keay reported that the Respondent successfully completed the tutorial on Medical Ethics.
4. As of June 11, 1990, there are no other cases against the Respondent.
5. There is no evidence that Respondent is a present threat to the public health, safety and welfare.

Conclusions of Law

The Board concludes, as a matter of law, that Respondent has satisfactorily complied with all conditions recommended by the Board as conditions precedent to Respondent's petitioning the Board for reinstatement of his license as set forth in the Order of October 16, 1989.

Order

Upon the foregoing Findings of Fact and Conclusions of Law, it is this 11th day of July 1990 by a majority vote of the full authorized membership of the Board

ORDERED that effective as of the date of this Order that Respondent's license to practice medicine in the state of Maryland be REINSTATED; and be it further

ORDERED that Respondent is placed on PROBATION subject to the following conditions:

1. Respondent shall be required to remain in psychotherapy with Dr. Hartmann for two (2) years

from the effective date of this Order and comply with all reasonable recommendations of Dr. Hartmann;

2. Respondent shall immediately sign a release in order to allow his therapist to submit quarterly reports to the Board and to permit the therapist to report to the Board if Respondent misses an appointment without cause and/or is not following the therapist's reasonable recommendations;

3. Upon discharge from the therapy, Respondent shall arrange for the therapist to submit a final report to the Board indicating that Respondent has satisfactorily made progress in treatment and that the therapist has recommended that Respondent be discharged;

4. In the event that the Respondent terminates therapy prior to discharge by the Respondent's therapist, the therapist shall immediately notify the Board that Respondent has left therapy without consent of the therapist; and

5. Respondent shall be evaluated by a Board-selected therapist twice during the probationary period, on or about June 1, 1991 and June 2, 1992; and be it further

ORDERED that after two (2) years after the effective date of this order, the Board will entertain a petition for termination of Respondent's probationary status and reinstatement of Respondent's license to practice medicine in Maryland without any conditions or restrictions whatsoever. If the Respondent has complied with all conditions of probation and if there are no outstanding complaints against Respond-ent, the Board will reinstate the Respondent's license without any conditions or restrictions whatsoever; and be it further

ORDERED that if the Board receives a report that Respondent has had a sexual relationship with a patient or that the therapist reports that Respondent is an imminent danger to the public safety, health or welfare, the Board, without prior notice and an opportunity to be heard, may immediately suspend Respondent's license, provided that Respondent is given immediate notice of the charges and an opportunity for a hearing thirty (30) days after requesting same; and be it further

ORDERED that this is a Final Order and as such is considered a public document pursuant to the Maryland Public Information Article, State Government Article, Annotated Code of Maryland, § §10-611 *et seq.*, specifically, §10-617(h)(2)(vi).

ISRAEL H. WEINER MD, Chairman
Maryland Board of Physician Quality Assurance

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Indications: Yocon® is indicated as a sympathicolytic and mydriatric. It may have activity as an aphrodisiac.

Contraindications: Renal diseases, and patient's sensitive to the drug. In view of the limited and inadequate information at hand, no precise tabulation can be offered of additional contraindications.

Warning: Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

Adverse Reactions: Yohimbine readily penetrates the (CNS) and produces a complex pattern of responses in lower doses than required to produce peripheral a-adrenergic blockade. These include, anti-diuresis, a general picture of central excitation including elevation of blood pressure and heart rate, increased motor activity, irritability and tremor. Sweating, nausea and vomiting are common after parenteral administration of the drug.[1,2] Also dizziness, headache, skin flushing reported when used orally.[1,3]

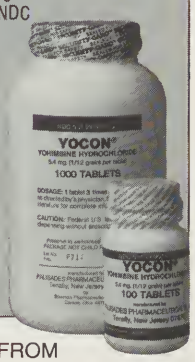
Dosage and Administration: Experimental dosage reported in treatment of erectile impotence.[1,3,4] 1 tablet (5.4 mg) 3 times a day, to adult males taken orally. Occasional side effects reported with this dosage are nausea, dizziness or nervousness. In the event of side effects dosage to be reduced to ½ tablet 3 times a day, followed by gradual increases to 1 tablet 3 times a day. Reported therapy not more than 10 weeks.[3]

How Supplied: Oral tablets of Yocon® 1/12 gr. 5.4 mg in bottles of 100's NDC 53159-001-01 and 1000's NDC 53159-001-10.

References:

1. A. Morales et al., New England Journal of Medicine: 1221. November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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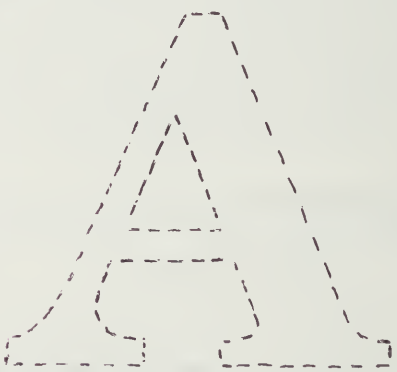
When considering self-disclosure, what issues should be taken into account?

How will others react to my self-disclosure?

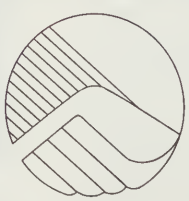
Should I tell my colleagues?

What should I tell my patients?

What should I say on applications for privileges, licensing, etc.?



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For a free copy of "To Disclose or Not to Disclose," a brochure of questions and answers on the topic of self-disclosure for the physician recovering from impairment or illness, published by the Physician Rehabilitation Committee of the Medical and Chirurgical Faculty of Maryland as a service to all Maryland physicians, members and non-members, write to Med Chi, Physician Rehabilitation Committee, 1211 Cathedral Street, Baltimore, MD 21201 or call (301) 539-0872 or in MD 800-492-1056.

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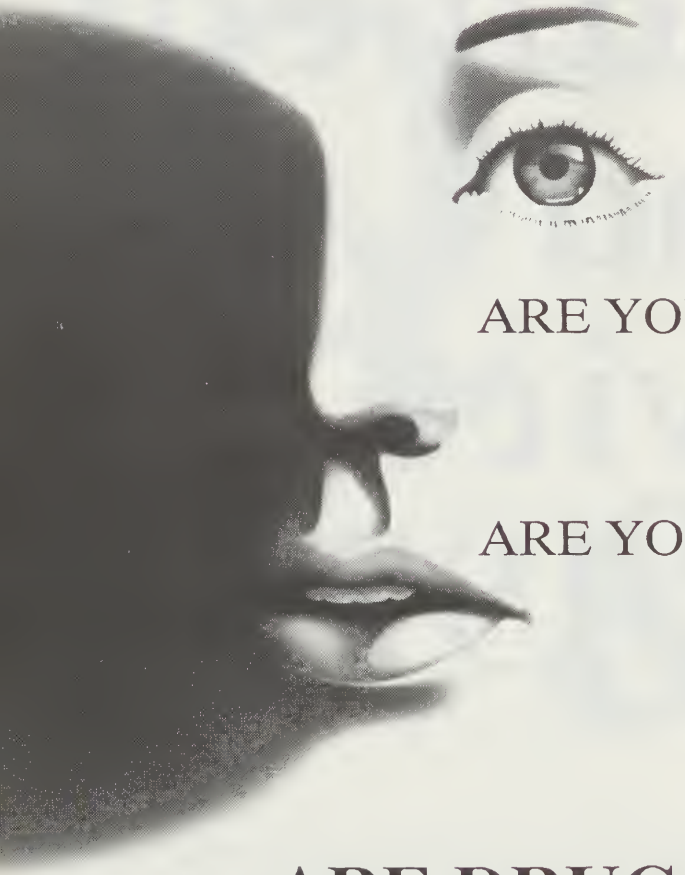
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Medical and Chirurgical Faculty of Maryland

Physician Rehabilitation Committee

Legal and Ethical Concerns of Your Medical Practice

This monthly digest will summarize the laws of the State of Maryland, as well as the guidelines, procedures, codes of cooperation, and policy statements of the Medical and Chirurgical Faculty. These laws and policies are being published to reflect recent areas of concern to physicians throughout the state. The Principles of Medical Ethics of the American Medical Association have been adopted as the ethical standards of the Medical and Chirurgical Faculty, and they govern the conduct of members in their relations to the public and to each other (Faculty Bylaws, Article XIII, Section 1). For more information, please refer to the Compendium of Laws, Regulations, Opinions and Policies Governing the Practice of Medicine in Maryland.

■ ■ ■

Release of Medical Records

Upon receiving a number of calls from physicians and attorneys, I have decided to devote this month's Quality Practice Digest to the issues surrounding the release of medical records to various third parties, including attorneys.

First, it should be noted that pursuant to authority in the Maryland Health Occupations Article, the Board of Physician Quality Assurance can take action against a physician if he fails to release the medical records to another physician. Health Occupation Article, Sec. 14-504 states,

> "... (a) The Board, on the affirmative vote of a majority of its full authorized membership, may reprimand any licensee, place any licensee on probation, or suspend or revoke a license if the licensee: ...
> (13) On proper request, fails to provide details of a patient's medical record to another physician or hospital;"

Additionally, the Medical and Chirurgical Faculty's Ethical Opinion 105 addresses the release of medical records to physicians and to attorneys.

.01 Ownership. The physician who creates the patient's medical records is the owner of those records. The medical record includes x-rays and living wills. If the physician is associated with some type of a legal or corporate entity, the records may be the property of that entity, depending upon the terms of the relationship. If a written agreement concerning the custody and ownership of the medical records exists, such an agreement prevails. It is in the physician's best interests to enter into such an agreement.

.02 Transfer between Physicians. The patient's interests are paramount when dealing with a request for transfer of medical records. Physicians who are in possession of a patient's medical records should not refuse, for any reason, to make copies of those records promptly available to the current treating physician upon the receipt of the patient's proper written request. If the patient's medical records include a living will, it should be transferred as well, unless the patient specifically states otherwise. Copies of pertinent medical records or an abstract thereof, should not be withheld pending payment of a patient's outstanding account. If additional information is required, the physician should respond courteously and promptly. A physician who is planning to retire should send medical records to physicians free of charge; medical records of former patients should not be sold. If the copying or abstraction is unduly burdensome or lengthy, a reasonable fee may be charged. Such a fee should be agreed upon at the outset. When transferring x-rays to the current treating physician, the physician in possession of the x-ray may charge the reasonable cost of copying and postage. Under no circumstances may a deposit (refundable or non-refundable) be charged for lending the x-ray to the current treating physician.

.03 Requests by Non-physician Third Parties. When preparing medical records or reports at the request of an attorney or other non-physician third party, a physician may ethically require payment for these records or reports in advance. When simply copying records or reports, a physician should charge only the reasonable cost of copying such data. It is unethical for a physician to withhold preparation of medical records or reports on the basis that the patient's bill for prior services remains outstanding. However, in circumstances where the request does not directly involve the patient's healthcare or reimbursement thereof, a physician may provide only such records or reports as will reasonably impart the information.

.04 Requests Involving Alternative Delivery Systems. When dealing with medical record requests from alternative delivery systems, continuity of patient care must be the physician's primary concern. In every instance, the physician must supply enough information to the alternative delivery system to allow the care of the patient to continue uninterrupted. The treating physician or the medical director within the system has the ultimate responsibility for providing these records. Physicians may charge alternative delivery systems for the transfer of medical records.

The Medicolegal Code of Cooperation further sheds light on the duties of the physician and attorney regarding medical records. It provides in pertinent part:

Medical Records and Reports. Most medicolegal

situations are resolved by an evaluation of medical records and reports. Documents submitted by an attorney in support of a client's claim must contain sufficient information to allow that client's medical condition to be evaluated. Sufficient information may be contained in a physician's medical records or a hospital record. In some cases, however, a special report by the physician may be requested.

Authorizations. An attorney should furnish the physician a proper authorization for release of medical information regarding the patient unless not required to do so by law (HG 4-301). When a treating or consulting physician receives a request for medical information accompanied by a proper authorization, he should promptly furnish that information or the documents requested. If an attorney requests records or reports, he should specify whether a copy of the medical records maintained by the physician in treating the client will suffice or whether a special report is necessary. In the latter case, the attorney's request should specify the information needed in the report.

Fees. A physician may charge a reasonable fee for furnishing medical records or reports. If only existing medical records are requested, the charge should be for reproduction and staff time incurred in that reproduction. If a special report must be prepared, the charge may include compensation for the physician's time expended, as well as staff preparation time and reproduction. It is incumbent upon an attorney to see that the physician is promptly paid any reasonable bill submitted for furnishing medical records or reports.

In summary, the physician, on proper request by another physician, has a duty to release the medical records. They should never be withheld because of a patient's outstanding account. If the physician agrees to prepare medical records or reports for an attorney, the physician may charge a reasonable fee. The physician, however, should not withhold preparation of such reports on the basis of a patient's outstanding bill.

The Maryland General Assembly recently enacted SB 584 (which the governor signed into law). This bill will alter various sections of the Maryland Code pertaining to medical records release. Future issues of the *MMJ* will discuss the implications of this bill.

GREGORY DON HALL PD, JD, LLM
Associate, Rifkin, Evans, Silver & Lamone
Legal representative for the Medical and Chirurgical Faculty ■

Speak Out on Consultation

Consultation, a radio program sponsored by the Medical and Chirurgical Faculty of Maryland allows Med Chi physicians to appear each week on the program to discuss the latest developments in medicine and to answer questions about health issues. Med Chi currently airs two sessions of Consultation:

Saturday Evening Consultation
A live program
Saturday from 5:00 to 6:00 p.m. and 6:00 to 7:00 p.m.
Broadcast across the country
An hour-long program
Call-in format: Physician answers questions from listeners

Sunday Morning Consultation
A pre-taped program
Sunday at 7:30 a.m.
Broadcast on WBAL - AM radio
A half-hour program
Interview format: one-on-one talk with John Stupak

Med Chi encourages all physicians to appear on these innovative programs. To register fill in the form below.
Yes, I am interested in speaking on Consultation. Please contact me with scheduling information.

Name _____ Address _____

Phone _____ Specialty _____

Return this form to: Betsy Newman, Med Chi, 1211 Cathedral Street, Baltimore, MD 21201.
For more information contact Betsy Newman at 301-539-0872 or in Maryland 1-800-492-1056.

Combination Therapy

Doctor, I have been taking glyburide to control my diabetes for the past two years. I test my glucoses at home, and my blood glucose averages about 160 mg/dl before dinner and at bedtime, but my fasting glucose stays at about 200 mg/dl. I try to stick to my diet. How is it that my blood glucose goes up from bedtime to morning without my eating, and what can I do to improve my glucose control?

The problem you describe is very common in Type II, non-insulin dependent diabetes, and an understanding of why this happens is essential to the successful management of this kind of diabetes.

Your diabetes results from a combination of problems. There is a genetic predisposition to the development of Type II diabetes. Being overweight or overeating makes this kind of diabetes more significant in terms of blood glucose elevation. Patients with Type II diabetes have both a decrease in insulin secretion, and peripheral resistance to the effects of insulin. Insulin acts at the muscle, fat, and liver cells to increase glucose uptake, and at the liver cell to suppress glucose production. In Type II diabetes the insulin that is secreted is unable to maximize glucose uptake or totally suppress liver glucose production. As a result, glucose is cleared more slowly from the blood; in the fasting state, since glucose production is not shut off, blood glucose rises. It is this failure to shut off liver glucose production that results in a rise in blood glucose overnight.

It has also been found that the higher the fasting blood glucose above 160 mg/dl, the lower the insulin level - meaning that fasting blood glucose elevation further inhibits insulin secretion, making the diabetes worse.

The reason that your fasting blood glucose is the highest of the day is that your oral medication is successful in promoting increased insulin release with meals, but is unable to increase insulin levels high enough in the fasting state to suppress liver glucose production.

To lower the fasting blood glucose to normal, several approaches could be taken. If your meal plan is not optimal, this could be improved by decreasing total caloric intake and distributing calories more appropriately, thus allowing the insulin you have to work more efficiently. Regardless of other approaches, diet remains the cornerstone of therapy for Type II diabetes. Increased exercise will also improve insulin responsiveness and should be included in the plan to control your diabetes if there are no other medical reasons why you should not exercise. Your dose of glyburide could be increased if you are not at the maximum dose.

Finally, if none of these therapeutic approaches can be improved, you may require the addition of insulin injections to bring down the fasting glucose. Since it is the fasting glucose you are trying to improve, it makes sense to take an injection of an intermediate acting insulin, either NPH or Lente, at bedtime. This, in combination with daytime glyburide or other oral sulfonylurea may well bring both the fasting and postmeal glucoses under control. This kind of therapy has been called BIDS, for bedtime insulin, daytime sulfonylurea. This approach of giving bedtime insulin in Type II diabetes, with or without daytime sulfonylurea, is relatively new, but has been shown to be effective for many patients.

Submitted by:
JAMES H. MERSEY MD
Chief, Division of Endocrinolgy
Greater Baltimore Medical Center

DeWITT E. DeLAWTER MD
Editor

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Evaluation of Patients with Claudication

I read with interest your (Dr. DeLawter's) article on "One Minute with Diabetes" in the June 1990 issue of the *Maryland Medical Journal*. The contribution this month apparently was by Dr. Storella. I would like to call your attention to the last paragraph of her article. She ends her article by stating that "For family physicians and internists the first steps in the evaluation of patients with claudication are doppler testing and diagnostic angiography." I strongly disagree with this. The first steps in evaluation of patients with claudication are not any different for family physicians, internists, or vascular surgeons. Certainly the first steps do not include *diagnostic angiography*. Some of your readers may misunderstand the intent of this sentence. Diagnostic angiography in anyone, especially diabetics, may be associated with significant risk. She goes on to say that percutaneous treatment of short stenosis will help prevent development of foot ulcers. Perhaps in some instances of severe ischemia (often not associated with short stenosis alone) this holds true; however, in diabetics who often have bounding foot pulses, meticulous attention to foot care is more important.

Although vascular surgeons do not always have to be involved in the care of someone with peripheral vascular disease, physicians independent of their specialty need to be made aware that the first step in the evaluation of patients with claudication is a very good history and physical examination. The vast majority of time, this will not only give one an idea of the location and/or extent of their vascular disease, but a good idea of the disability associated with it.

If you have any questions or concerns, I would be most happy to discuss them with you.

STEVEN J. BRAND MD
Frederick

Response from the Editor of One Minute with Diabetes

The commentary letter from Steven J. Brand MD about the "One Minute with Diabetes" article on the subject of peripheral vascular disease and percutaneous catheterization submitted by Janet Storella MD, Radiologist, Suburban Hospital, Bethesda, MD is appreciated.

Certainly Dr. Brand's recommendation that a "very good history and physical examination" should be the first step in the evaluation of any patient is valid, and both Dr. Storella and the editor of the column erred in not mentioning that procedure.

However, the intent of the article was to demonstrate to the internist and family physician that a relatively new procedure, namely transluminal angioplasty and atherectomy, should be considered as a means of shortening hospital stay and possibly preserving some diabetic limbs. Certainly a vascular surgery consultation should be obtained before any angioplasty or atherectomy procedure is undertaken. The relative risk is the same as in nondiabetic patients, assuming normal renal function. The use of angioplasty is also helpful to the plastic surgeon in planning skin graft procedures to assure a viable graft and success of the procedure.

In summary, the goal of this message is that the primary care physician should be aware of the diagnostic and interventional techniques now available to the patient with peripheral vascular disease, and by proper application, promote foot ulcer healing and prevent limb loss.

DeWITT E. DeLAWTER MD, Editor
One Minute with Diabetes

Note: Janet Storella MD was not available for comment at this time. Joseph Mock MD, Chief of Radiology, Suburban Hospital, Bethesda, provided the information for the letter of response. ■

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Willie T. Hamlin MD was recently awarded a Distinguished Community Service Award by the Office of the County Executive, Montgomery County for his efforts in establishing a scholarship fund to reward academic achievement in young men at an intermediate school. He was also presented with a Business Appreciation Certificate by the Montgomery County Government for his creation of a publishing company, Three Cs Publications, geared to early childhood development materials; the letters in the name represent character, compassion and cognition. Dr. Hamlin, a psychiatrist from Silver Spring, is the Director of the Institute for Child and Family Psychiatry, Inc.

■ ■ ■



George S. Malouf, Sr. MD, a specialist in ophthalmology, has been named Chairman of Med Chi's Delegation to the American Medical Association House of Delegates, the policy-making body of the AMA. Dr. Malouf is a charter member of the Maryland Society of Eye Physicians and Surgeons, serving as its first Vice President and becoming President in 1981. He has been President of the Prince George's County Medical Society, Chairman of the Council and President of the Medical and Chirurgical Faculty of Maryland, and member of the Board of the Maryland Medical Political Action Committee. In addition, Dr. Malouf has been the recipient of the prestigious A.H. Robins Award and was awarded Prince Georgian of the Year in 1988.

■ ■ ■

Henry P. Laughlin MD, Associate Editor of the *MMJ* and President-elect of the Frederick County Medical Society, was elected the Surgeon General of the National Society of the Sons of the American Revolution at the historic 100th Annual Congress in Louisville, KY. Laughlin thus becomes only the third Maryland physician (Robert F. Dyer, Jr. MD of Bethesda and J. King B.E. Seegar, Jr. MD of Baltimore served earlier) and the first US psychiatrist to be so honored. The



NSSAR is a leading national organization comprised of more than 26,000 American patriots whose ancestors participated in our War of Independence in the late 1700s.

He has been a member of the NSSAR's Medical Advisory Committee since its inception, and is currently the Chairman. He also served as the Chairman of the National Round Table Committee and holds membership in the National Medals and Awards, Merchandise and US Stamps, and earlier of the Historic Building and Sites Committees. He has been a Maryland Delegate to four National Congresses and five Atlantic Middle States Conferences, and has been a regular participant in the Biennial Trustees Meetings in Louisville, KY.

Long active in the Sons of the American Revolution (SAR), as in Med Chi, Laughlin is a Past President and former alternate National Trustee and National Trustee for the Maryland Society, and is former Vice President General of the national organization. In 1988 he was named Honorary Life President of the Sgt. Lawrence Everhart Chapter of Frederick County, and is now the second-term National Trustee for the United Kingdom. He is a multi-decorated veteran of World War II.

Admiral Laughlin holds a number of SAR awards including the War Service, Patriot, Bronze Good Citizenship, three Meritorious Service, Law Enforcement, and three Silver Good Citizenship Medals - in addition to five Certificates of Appreciation and five Distinguished Service Certificates. In 1988 and again in 1989, he represented the SAR as the Grand Marshal of the National Independence Day Parade in Washington, DC. He is now part of the Parade Organization, having been named the Grand Marshal Emeritus.

Laughlin is the third-term SAR Liaison Officer to another major national patriotic organization, the Sons of the Revolution, and is also currently serving as President of the prestigious National Congress of Patriotic Organizations. He is an Emeritus Professor at the University of Louisville Medical School and is a Past President of both the American College of Psychiatrists and the American College of Psychoanalysts. In June he was named Associate Editor of Med Chi's significant new publication, *Physician's Practice Digest* (PPD). ■

THE JOHNS HOPKINS MEDICAL INSTITUTIONS

All courses at the Turner Auditorium unless otherwise indicated. Sponsored Continued Education Activities for 1990. Info: Office of Continuing Education, 720 Rutland Ave., Turner Auditorium, Baltimore, MD 21205 (301-955-5880).

October 3-6

Sixteenth Annual Topics in Gastroenterology and Liver Disease, sponsored by The Harvey M. and Lyn P. Meyerhoff Digestive Disease and Inflammatory Bowel Disease Center and Department of Medicine. Fee: physicians $425; residents and fellows $210 (w/ status letter from dept. chairperson). 23.5 AMA Cat I credits. Info: 301-955-2959.

October 22-27

32nd Annual Emil Novak Memorial Course: Gynecology, Gynecological Pathology, Endocrinology, and High-Risk Obstetrics. Fee: physicians $650; residents $450 (w/ status letter from dept. chairperson). 44.5 AMA Cat I credits. Info: C. Kearney 301-955-2959.

October 26

Current Concepts in Cardiology, Sheraton Towson Conference Hotel, Towson, MD. Fee: $75. 8.5 Cat I AMA credits, 7.5 prescribed hours from AAFP. Info: P. Campbell 301-955-2959.

October 30-31

3D Neuroimaging: Theory and Clinical Applications, sponsored by the Department of Radiology and Radiological Sciences. Fee: physicians $300; Johns Hopkins staff $200. 16.5 AMA Cat I credits. Info: F. Boling 301-955-2959.

November 1-4

Principles and Practice of MRI, at the Hyatt Regency Baltimore, sponsored by the Department of Radiology, Division of Magnetic Resonance Imaging. Fee: physicians $495; residents and fellows $250. 24 AMA Cat I credits. Info: D. Heydinger 301-955-2959.

November 2-3

Progress in Pediatrics, sponsored by the Children's Medical and Surgical Center. Fee: physicians $125; residents, fellows and nurse practitioners $75. 11 AMA Cat I credits, 11 PREP credits, other appropriate credit is pending. Info: P. Campbell 301-955-2959.

November 5-7

Advanced Pediatric Life Support Courses. Fee: $495. Credits: 20 Cat I AMA; 20 AAP PREP. Info: 301-955-2959.

January 27 - February 1, 1991

Gastroenterology Update 1991, at The Crestwood, Aspen/Snowmass, Co., sponsored by The Johns Hopkins School of Medicine and American College of Gastroenterology. Fee: $450 physicians, $325 Residents & Fellows; $325 nurses & allied health professionals. 20 AMA Cat I credits. Info: Program Coordinator 301-955-2959.

February-April 1991

32nd Postgraduate Institute for Pathologists in Clinical Cytopathology for Board Certified (or qualified) pathologists as a subspecialty residency. 152 AMA Cat I credits in two courses, both of which must be taken. Application and preregistration is advised ASAP; preregistration must be completed before March 15, 1991 unless by special arrangement. Info: J. Frost MD or B. Remley, 111 Pathology Building, The Johns Hopkins Hospital, Baltimore, MD 21205 USA (301-955-8594). *The entire course is given in English.*

February-April Home Study Course A, personal reading and microscopic study at own lab in preparation for Course B. Course A materials will be sent to each participant within the U.S. and Canada for home study. Participants *outside* the U.S. and Canada must make arrangements to study Course A before Course B.

April 14-April 25 In-Residence Course B, lecture series, laboratory, and clinical experience at the Johns Hopkins Medical Institutions, Baltimore.

Continuously Throughout the Year

Ophthalmic Electrophysiology Technician Training Course (ongoing 1-week course by appointment). The Wilmer Eye Institute, Baltimore. Info: C. Kearney 301-955-2959.

The Department of Radiology and Radiological Sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams 301-955-3169.

Visiting Physicians - offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. Fee: $500. 40 AMA Cat I credits.

Johns Hopkins Medical Grand Rounds - Accredited audiovisual continuing education series of case discussions for clinicians; 30 topics/year in 5 bimonthly programs. Individual and group subscriptions. 40 AMA Cat I credits. Info: 301-955-3988.

Microsurgery Training at The Johns Hopkins Hospital, one week, offered continuously throughout the year. 40 AMA Cat I credits. Info: P. Williams 301-955-3169.

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CME Courses: For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (301-328-3956) or by calling the phone number listed under a specific program. FAX 301-328-3103.

October 18

Dean's Conference Number 1: Orthopedics in a Primary Care Setting, UMAB Campus, Medical School Teaching Facility, Baltimore. Fee: $120 for 4 conferences; $35 each. AMA credit available.

November 3-4

Scientific Update for the Cardiologist, Stouffer Harborplace Hotel, Baltimore. Fee and credits to be announced.

November 16

Sudden Infant Death Syndrome: Progress, Puzzles and Possibilities, Columbia Inn, Columbia, MD. Fee: $60. 6 AMA Cat I credits.

November 29

Dean's Conference Number 2: Clinical Medicine for the Community Physician; Topics in Medicine and Surgery, Eastern Shore Hospital Center, Cambridge, MD. Fee: $35. Credits to be announced.

December 7-8

Cancer in the Socioeconomically Disadvantaged: Models for Intervention, Stouffer Harborplace Hotel, Baltimore. Fee and credits to be determined. Info: Sharon Stenhouse 301-328-3956.

January 24

Dean's Conference Number 3: Health Issues For Men and Women, UMAB Campus, Medical School Teaching Facility, Baltimore. Fee: $35 (part of the $120 for 4 conferences). 6 AMA Cat I credits.

Continuously Throughout the Year

Visiting Professor Program - Directory of speakers and topics available for area hospitals and other healthcare organizations. No administrative fee. Info: 301-328-3956.

Visiting Practitioner Preceptorships - Opportunity for physicians to participate in clinical situations in the University of Maryland Medical Systems. Requires approval from clinical department/division heads. Hour-for-hour Cat I credits available. Direct all inquiries to CME 301-328-3956.

Departmental Rounds and Conferences - Weekly, hands-on and lecture presentations hosted by the University's clinical departments. Hour-for-hour AMA Cat I credits available. Brochure available.

Advanced Trauma Life Support Provider/Instructor Programs sponsored by University of Maryland/MIEMSS. Info: M. Nelson 301-328-2919.

October 18-19 Provider
November 15-16 Provider
December 6-7 Provider

Physician Placement Services

The Medical and Chirurgical Faculty of Maryland maintains a Placement Service for the convenience of Maryland physicians, hospitals, and communities in search of candidates for positions available in our state. A detailed description of such opportunities should be forwarded to:

Physician Placement Service
1211 Cathedral St., Baltimore, MD 21201-5585
(301-539-0872)

Physicians wishing to locate in Maryland are invited to submit a resume to be kept on file with the *Physician Placement Service*. Candidates are requested to inform the Faculty when they are no longer available for consideration for opportunities in Maryland.

MMJ announcements on the Classified Advertising page for Physician Placement Service are charged at the regular Classified Advertising rate.

MISCELLANEOUS MEETINGS

October 6	**Modern Approach to Ventricular Arrythmias**, symposium sponsored by the Department of Medicine, Division of Cardiology, Harbor Hospital Center, Baltimore. Fee: None, but preregistration is required. 4.5 AMA Cat I credits. Info: 301-347-3501.
October 20-21	**Practical Clinical Management: Drug Abuse Education for the Primary Care Physician**, Convention Center, Baltimore. Fee: Registration is complimentary. 12 PRA/AMA Cat I credits. Info: Med Chi Drug Conference, 1211 Cathedral St, Baltimore, MD 21201-5585 or call 301-539-0872 or 1-800-492-1056.
October 25-27	**New Techniques and Concepts in Cardiology** Hyatt Regency Hotel, Washington DC. Sponsored by the American College of Cardiology. Info: Registration Secretary, Extramural Programs Department, American College of Cardiology, 9111 Old Georgetown Rd., Bethesda, MD 20814 (1-800-253-4636 or 301-897-5400, ext. 228).
October 29-31	**NIH Consensus Development Conference: Diagnosis and Management of Asymptomatic Primary Hyperparathyroidism**, Masur Auditorium, Warren Grant Magnuson Clinical Center, NIH, Bethesda, MD. Info: Conference Registrar 301-468-MEET or FAX 301-770-5164.
November 9	**Arthritis Care for the 1990s - A Practical Approach for the Primary Care Physician**, Arthritis Foundation, Maryland Chapter. 8:45 a.m. - 5:00 p.m., Holiday Inn, BWI, Linthicum, MD. Fee: $40; $30 if not requesting AMA Cat I credits. 6 AMA Cat I credits, 6.5 AAFP prescribed hrs. Info: Karen Krug 301-561-8090.

Shady Grove Adventist Hospital, 9901 Medical Center Drive, Rockville, MD. Info: 301-279-6000.

October 4	MRI and CT Update
October 11	Hyperbaric Oxygen Therapy
October 18	Seasonal Affective Disorders: A New Light on the Eye
October 25	Medical Malpractice: Legislative Update

Information for Authors

Manuscripts may be sent to Editor, **MMJ**, 1211 Cathedral St., Baltimore, MD 21201. Articles are accepted for publication on the condition that they are contributed solely to this journal. Transmittal letters should designate one author as correspondent and include his/her address and telephone number. Manuscripts are reviewed by editorial board members and guest reviewers.

Specifications

Manuscripts must be original typed copy, double-spaced throughout (including text, case reports, legends, tables, and references) with pages numbered consecutively. Along with manuscripts, please send an IBM-compatible floppy disk, with the document entered in a Word Perfect, Multimate, or Wordstar program.

Include full name of author(s) with highest degree, academic and professional titles, affiliations, and any institutional or other credits.

Tables with brief descriptive titles are to be typed on separate sheets of paper and numbered. The Editor reserves the right to edit tables. Statistics must be consistent in both tables and text.

References are limited to those citations noted in the text and are to be typed double-spaced and numbered consecutively as they appear in text. The number of references generally is limited to 20 in major contributions and fewer in shorter articles. Personal communications and unpublished data should not be included.

Photographic material must be submitted as high-contrast glossy prints. Drawings and graphs must be of professional quality. Four or fewer illustrations should be adequate for a manuscript of 4 or 5 typed pages. Recognizable photos of patients are to be masked and should carry with them written permission for publication.

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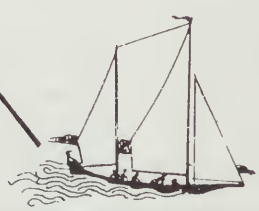


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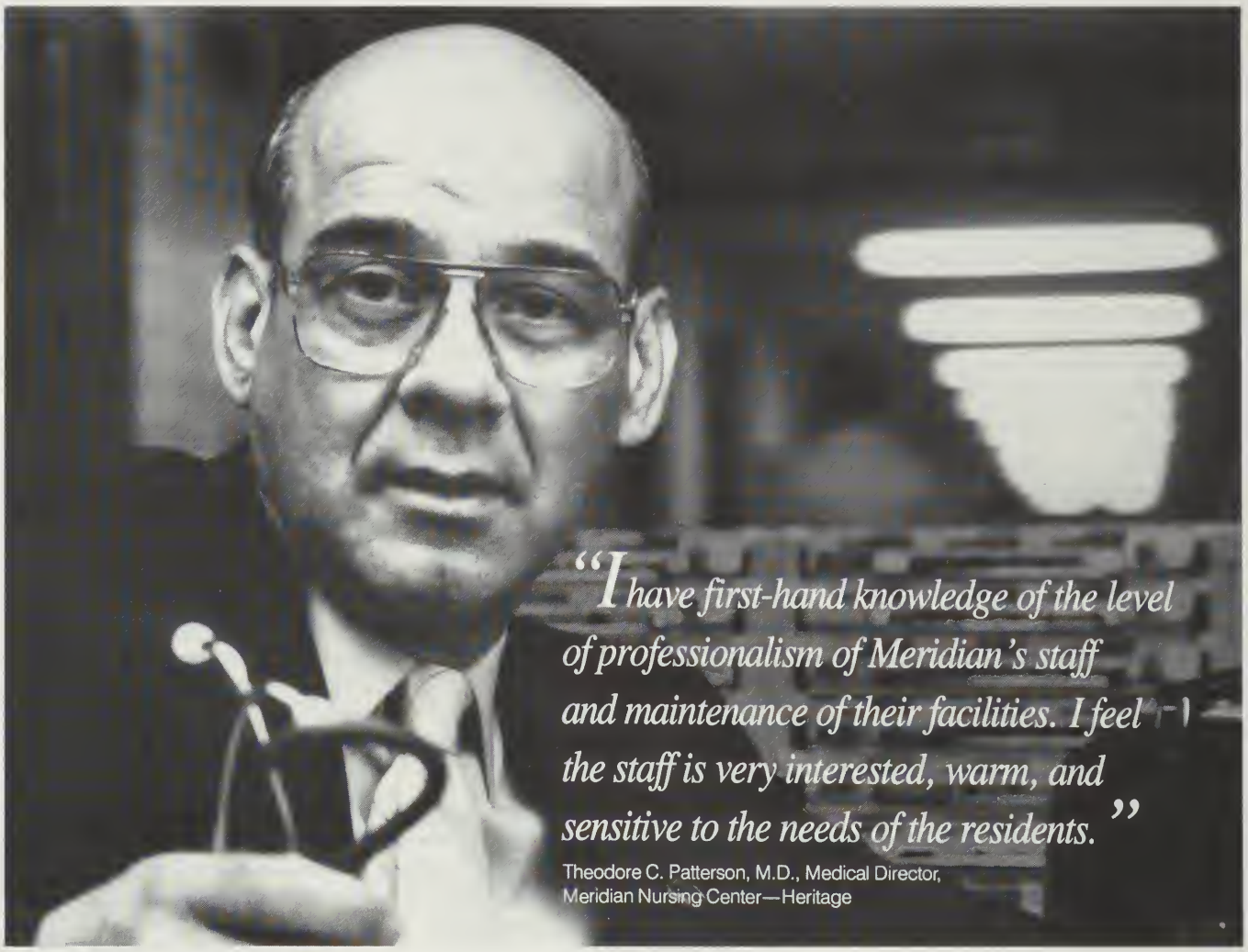
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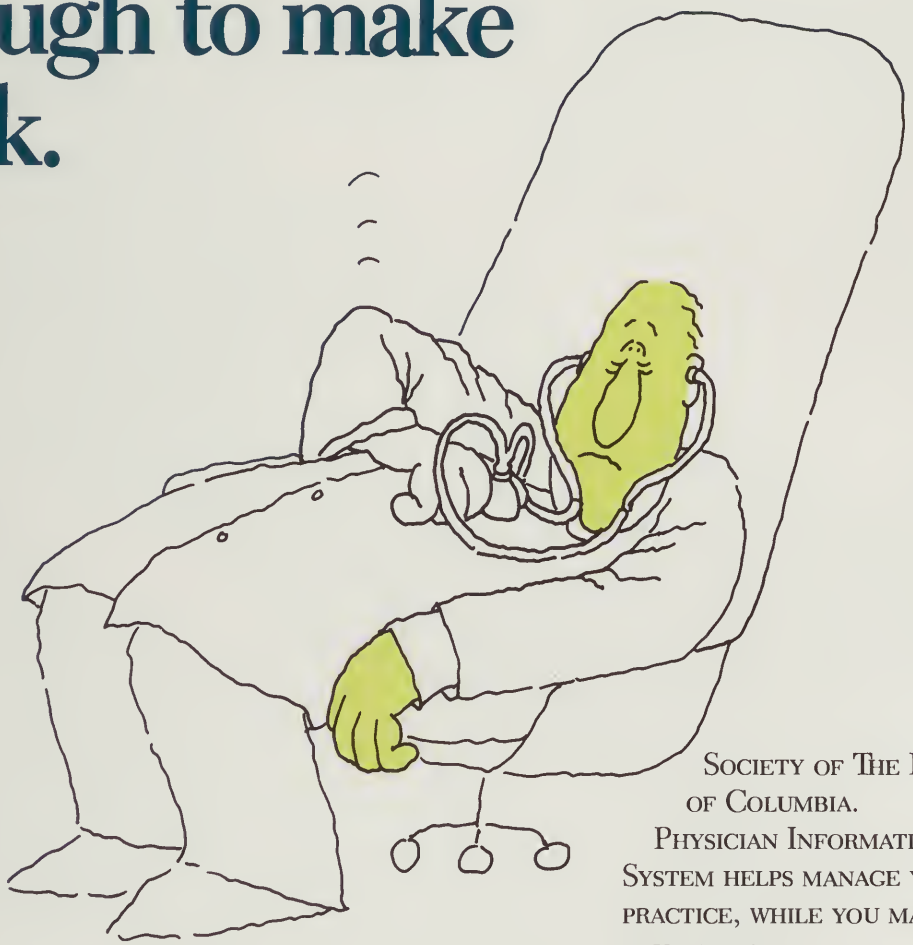
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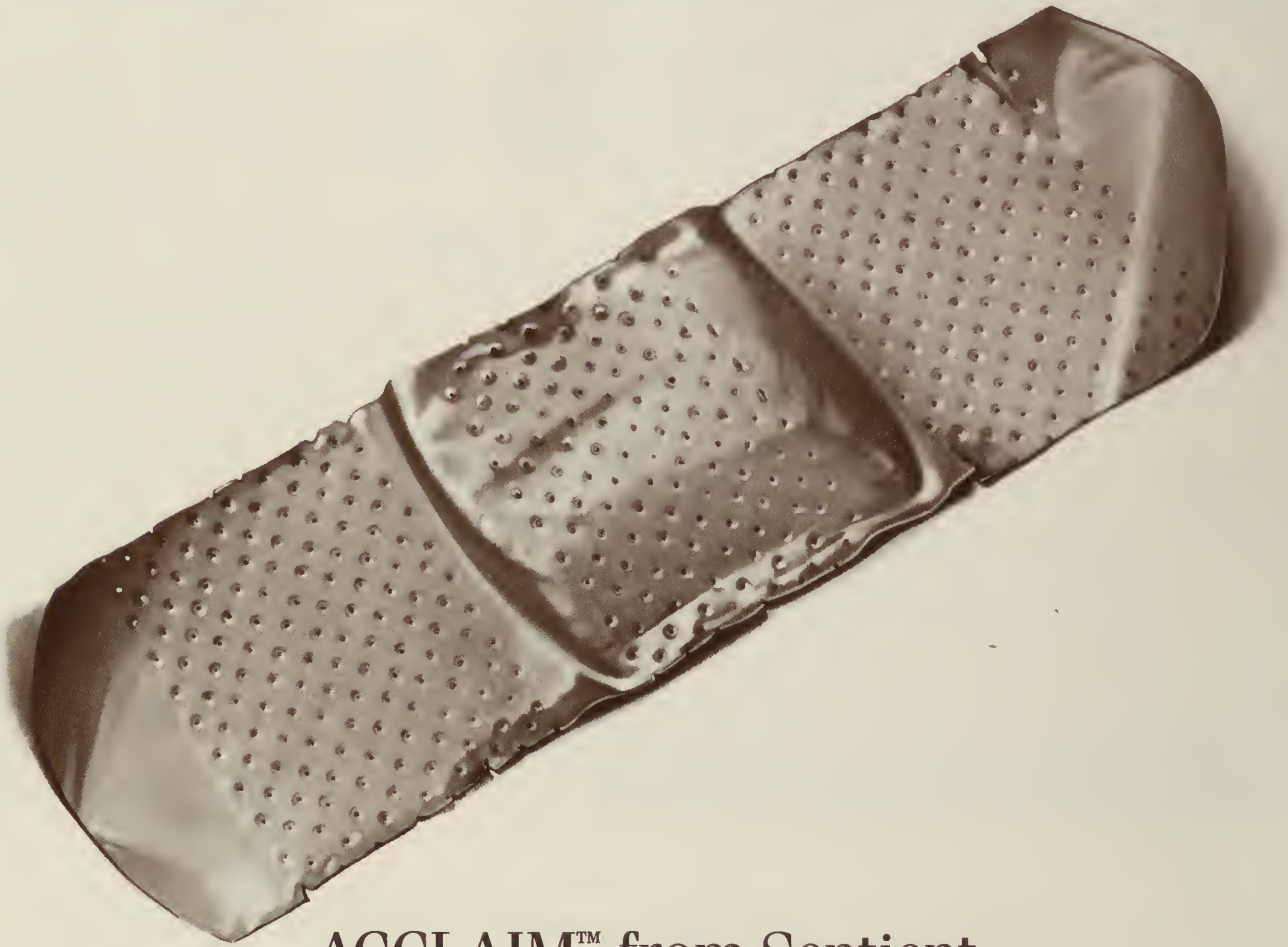
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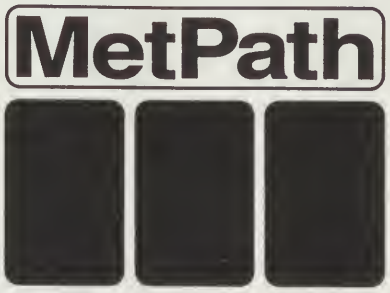
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ARTICLES

The Physician Rehabilitation Program of the Medical and Chirurgical Faculty of Maryland: Twelve Years and Going Strong 1005
Stanley R. Platman MD and Michael C. Llufrio CAC

The Effect of Physician Impairment on the Family 1007
Karl V. Gallegos MD; Kathy Bettinardi-Angres MS, RN; and G. Douglas Talbott MD
There are few studies on the effect of physician impairment on the marriage and the family. There is a need for research on both the functional and non-functional medical marriage, and treatment needs to be devised to focus on the special needs of the medical family.

The Role of the Medical Review Officer in the Workplace 1015
Stanley R. Platman MD
Drug testing is now a firmly entrenched part of the American workplace. It is the role of the Medical Review Officer to decide whether a test is positive and meaningful in terms of illicit drug use.

Physician Addiction to Pharmaceuticals: Personal History, Practice Setting, Access to Drugs, and Recovery 1021
Curtis Wright IV, MD, MPH
Specialists in the fields of anesthesiology, emergency medicine, and general or family practice are at increased risk of addiction. They may manifest a pattern of habitual overwork and/or grandiosity, have unrestricted access to drugs, and initiate use through self-medication.

The Physician Rehabilitation Program of Maryland 1029
Stanley R. Platman MD and Michael C. Llufrio CAC
The Physician Rehabilitation Program, under the auspices of Med Chi's Committee on Physician Rehabilitation, was established to assist physicians who are experiencing problems because of substance abuse, physical disability, or psychiatric illness.

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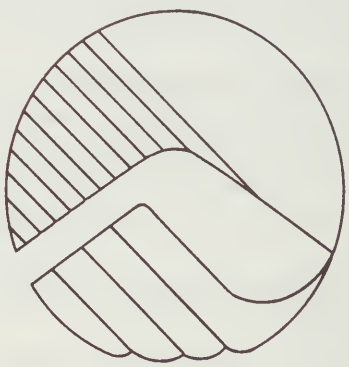
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The logo for the Physician Rehabilitation Committee was designed in 1988 by Michelle Dunn, then Art Director for Med Chi's Graphics Department. The logo is an abstract image representing a sun rising behind a mountain with a helping hand underneath. The sunrise represents the beginning of a new day--or a new life. The mountain represents the arduous journey involved, and the helping hand represents the Committee and the Physician Rehabilitation Program assisting in that journey to recovery.

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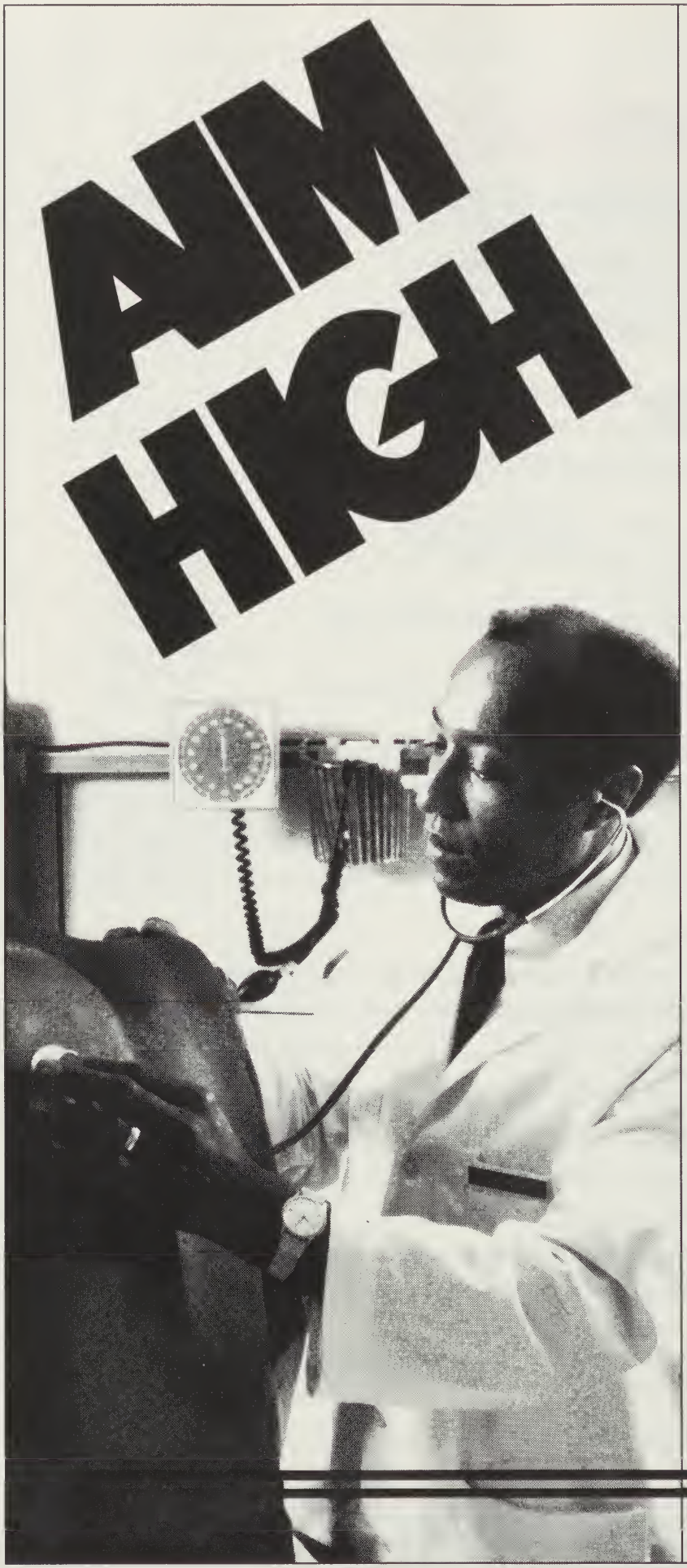
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November, 1990
Immunization Update

Routine Age for Haemophilus influenzae Vaccine Is Now 15 Months

Recommendation for Even Younger Age Is Expected Soon

Haemophilus influenzae type b (Hib) Conjugate Vaccine continues to undergo changes in the age at which it is recommended for routine use. The Immunization Practices Advisory Committee (ACIP) on April 13, 1990, recommended the routine vaccination of children at 15 months of age using any of the Hib conjugate vaccines licensed for use. Although there are differences in immunogenicity among the Hib conjugate vaccines made by different manufacturers, all are licensed for use at 15 months. Table 1 shows the differences in immunogenicity of the various conjugate vaccines.

The Immunization Division, Maryland Department of Health & Mental Hygiene (DHMH), has notified all local health departments of this recommendation, and is revising immunization schedules to reflect the routine use of Hib conjugate vaccine.

On the thrid and fourth pages of this update is a copy of the current Important Information about Hib Disease and Hib Conjugate Vaccine statement, for your use.

Note: As of September 4, 1990, the various Hib conjugate vaccine manufacturers had requested FDA approval for administering the Hib conjugate vaccine to children younger than 15 months of age. Obviously, further changes for routine administration Hib conjugate vaccine (possibly younger

TABLE 1. Haemophilus b conjugate vaccines: differences in immunogenicity by age of child at vaccination

	Children 15–17 mos.			Children 18–23 mos.		
Vaccine	No.	% >1 μg/mL[†]	GMT[§]	No.	% >1 μg/mL[†]	GMT[§]
PRP-D[¶]	43	53**	1.2	180	73**	3.1
PRP-HbOC[††]	236	98[§§]	10.8	141	97[§§]	12.3
PRP-OMP[¶¶]	71	80**	3.3	84	97**	7.2

*Because of interlaboratory variability in assays for antibody to the capsular polysaccharide of *Haemophilus influenzae* type b (PRP), definitive comparisons between vaccines cannot be made based on these data.
[†]Percentage of children with >1 μg/mL PRP antibody 4–8 weeks after vaccination.
[§]Geometric mean titer of PRP antibody (μg/mL).
[¶]Haemophilus b Conjugate Vaccine (Diphtheria Toxoid Conjugate). Source: Connaught Laboratories, Inc., unpublished data.
**p<0.05 (15–17 months vs. 18–23 months). PRP-D data for "children 18–23 mos." column are from children 18–24 months at vaccination.
[††]Haemophilus b Conjugate Vaccine (Diphtheria CRM_{197} Protein Conjugate). Source: Praxis Biologics, unpublished data.
[§§]Not significant (15–17 months vs. 18–23 months).
[¶¶]Haemophilus b Conjugate Vaccine (Meningococcal Protein Conjugate). Source: Merck Sharp and Dohme, unpublished data.

* Source: CDC. MMWR 1990, 39, 14:233.

age and more than one dose) are forthcoming.

Measles Outbreak Declines over Summer

Second Dose for Sixth Graders (Middle School Enterers) Encouraged

Through August of 1990, DHMH has officially reported 211 cases of measles (rubeola), the highest case count in more than a decade. With the resumption of school, there remains considerable potential for continued outbreaks of measles.

The number one priority continues to be routine administration of MMR to all children at 15 months of age. Health care providers should do all within reason to ensure that children are immunized at 15 months of age with MMR.

Health care providers should be alert to identify possible measles cases and to initiate rapid control measures including immunization of possible contacts. Prompt notification of the (suspect) case to the local/state health department is critical.

The DHMH continues to carefully study the issue of routine second dose measles (MMR) vaccine. At the present time, the DHMH recommends a routine second dose of measles (MMR) vaccine at sixth grade (middle school entry), and for students entering colleges and technical schools. Students who have received two doses of MMR at any time after their first birthday do **not** need a third dose later. Additional information will be provided, via local health departments, regarding the supplemental Federal funding that is now available for the second dose of MMR.

Pertussis Regulation Reminder: Give Information to Parent and Report Reactions

Health care providers who administer pertussis vaccine are required by Maryland Regulation (COMAR 10.52.05) to provide certain information to the patient/parent before pertussis containing vaccine is administered. The Maryland Pertussis Pamphlet meets this requirement. The Immunization Division, DHMH (301) 225-6679, or your local health department, can provide a copy to private physicians or clinics for reproduction.

Also, the regulation requires the health care provider to report any "major" adverse event associated with the administration of pertussis vaccine. This can be accomplished by telephoning your local health department or by mailing a standard morbidity report card to your local health department.

Hepatitis B Perinatal Prevention Funding Received

Report Pregnant Women who have HBsAg to Local Health Departments

The Immunization Division, DHMH, has received supplemental Federal funding for prevention of perinatal hepatitis B. This is the first Federal funding that has been made available to states for hepatitis B prevention.

This program will make hepatitis B vaccine and hepatitis B immune globulin (HBIG) available to infants born to hepatitis B surface antigen (HBsAg) carrier mothers if they have no other means of paying. It also provides for hepatitis B vaccine for the carrier mothers' household and sexual contacts, if they have no other means to secure vaccine. Additional information will be forthcoming via local health departments.

If you identify pregnant women who are HBsAg positive, please report them to your local health department. Specific information can then be obtained that will allow determination of which persons will be eligible to receive the vaccine and HBIG through this funding.

IMPORTANT INFORMATION ABOUT *HAEMOPHILUS INFLUENZAE* TYPE b DISEASE AND HAEMOPHILUS b CONJUGATE VACCINE

Please read this carefully

WHAT IS HAEMOPHILUS INFLUENZAE TYPE b DISEASE?

Haemophilus influenzae type b (Haemophilus b) is a bacterium which can cause serious disease, especially in children under 5 years of age. This bacterium does not cause the "flu" (influenza). In the United States, Haemophilus b causes about 12,000 cases of meningitis (infection of the covering of the brain) each year, mostly in children under 5 years of age. About 1 child in every 20 with meningitis caused by Haemophilus b dies of it and about 1 out of 4 has permanent brain damage. Haemophilus b can also cause pneumonia and infections of other body systems such as blood, joints, bone, soft tissue, throat, and the covering of the heart.

About 1 in every 200 children in the United States will have a moderate to severe disease caused by Haemophilus b before their fifth birthday. Serious Haemophilus b disease is most common in children between 6 months and 1 year of age, but 35 to 40 percent of severe disease occurs in children 18 months of age or older.

HAEMOPHILUS b CONJUGATE VACCINE:

There are at least three types of licensed Haemophilus b conjugate vaccines available for use. All of the vaccines contain the outer coating of the Haemophilus b bacterium which is the part that gives protection against the disease. There are some differences among the vaccines. However, all of the vaccines are considered to be effective.

The Haemophilus b conjugate vaccine is given by injection. More than 90 percent of 18-to 24-month-old children given this vaccine responded by making substances in their blood (antibodies) that are considered to provide protection for at least 1 year against the severe diseases caused by Haemophilus b bacteria. However, several days are required for any protection to be obtained after immunization. Whether the vaccine provides protection against ear infections caused by Haemophilus b bacteria is not known. It does not protect against disease caused by other types of Haemophilus. The vaccine does not protect against meningitis caused by other bacteria. The vaccine is not known to cause Haemophilus disease.

The Haemophilus b conjugate vaccine first became available in 1988 and its use is preferred over an earlier type of vaccine called the Haemophilus b polysaccharide vaccine, which first became available in 1985.

WHO SHOULD RECEIVE THE HAEMOPHILUS b CONJUGATE VACCINE?

1. A single dose of the vaccine is recommended for all children at 15 months of age. Children 15 months to 23 months of age should also receive a dose if they have not already been immunized.

(PLEASE READ OTHER SIDE)

2. Children 24 to 60 months of age may be considered for immunization, especially if they are believed to be at high risk for getting Haemophilus b disease. This includes children attending day-care facilities and children with certain medical conditions such as sickle cell disease, those whose spleens have been surgically removed, and children with cancers associated with decreased ability to fight infections.
3. Children under 15 months of age should not be immunized, because the vaccine is not approved for use in children younger than 15 months of age.
4. Children 60 months of age and older and adults normally would not be immunized.
5. A second dose (booster dose) of vaccine is not recommended at this time.

POSSIBLE SIDE EFFECTS FROM THE VACCINE:

The Haemophilus b conjugate vaccine has few side effects. Information about the vaccines now available in the United States indicates that approximately 1 out of every 8 children who receive the vaccine will get some redness, swelling, or tenderness in the area where the shot was given. About 1 out of every 140 children will have a fever of 102.2°F. or higher. These reactions begin within 24 hours after the shot is given, but generally go away by 48 hours after immunization. Other possible reactions such as vomiting, diarrhea, or crying may occur in approximately 1 out of every 100 children. With any vaccine or drug, there is a rare possibility that allergic or other reactions, such as febrile seizures or even death, could occur.

WARNING—SOME PERSONS SHOULD NOT TAKE THIS VACCINE WITHOUT CHECKING WITH A DOCTOR:

- Anyone who is sick right now with something more serious than a cold.
- Anyone who has had a serious reaction to a product containing thimerosal, a mercurial antiseptic (included in one of the vaccines that is in use).
- Anyone who has had an allergic reaction to a vaccine containing diphtheria toxoid so serious that it required medical treatment.

QUESTIONS:

If you have any questions about Haemophilus b disease or Haemophilus b conjugate vaccine, please ask now or call your doctor or health department before you sign this form.

REACTIONS:

If the person who received the conjugate vaccine has a convulsion or other serious reaction, the person should be seen promptly by a doctor.

If the person who received the conjugate vaccine gets sick and visits a doctor, hospital, or clinic during the 4 weeks after immunization, please report it to:

PLEASE KEEP THIS PART OF THE INFORMATION SHEET FOR YOUR RECORDS

I have read or have had explained to me the information on this form about Haemophilus b conjugate vaccine. I have had a chance to ask questions which were answered to my satisfaction. I believe I understand the benefits and risks of the haemophilus b conjugate vaccine and request that it be given to me or to the person named below for whom I an authorized to make this request.

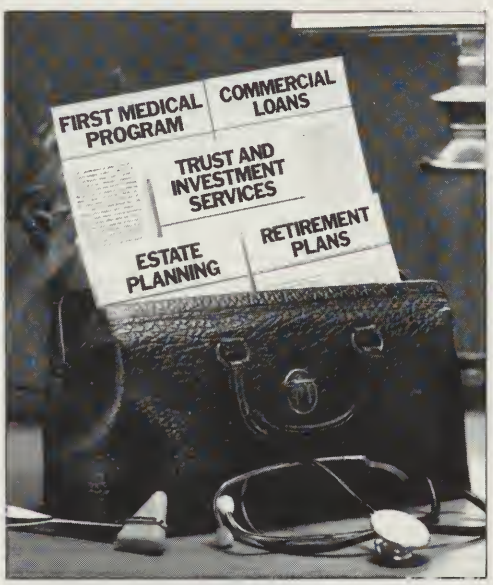
Haemophilus b Conjugate 6/15/90

INFORMATION ABOUT PERSON TO RECEIVE VACCINE (Please Print)						FOR CLINIC USE
Name:	Last	First	MI	Birthdate:	Age:	Clinic Identification:
Address:	Street			County:		Date Vaccinated:
	City		State		Zip	Manuf. and Lot No.:
Signature of person to receive vaccine or person authorized to make the request: X _____ Date: _____						Site of Injection:

FOR DATA PROCESSING USE ONLY (OPTIONAL)

VACCINE HISTORY ☐ Place check in box if history previously submitted				
DTP: m d yr m d yr m d yr m d yr m d yr	HAEMOPHILUS bPV: m d yr m d yr	HAEMOPHILUS bCV: m d yr		
POLIO: m d yr m d yr m d yr m d yr m d yr	MEASLES: m d yr	MUMPS: m d yr	RUBELLA: m d yr	

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One Minute with Diabetes

Splitting the Daily Dose of Insulin

Doctor, I have the type of diabetes in which my blood glucose is normal when I go to bed at night, and yet in the morning I wake up with hyperglycemia (250-300 mg/dl). My last glycohemoglobin test was 9 percent (normal 3-6 percent). My meal plan is fine although I am about 10 pounds overweight. I have taken 60 units of NPH insulin before breakfast each day for years. About six months ago, I changed from NPH Pork-Beef insulin to NPH Humulin. After that, the morning blood glucose seemed to be even higher. Should I change to a different kind of insulin? How can I correct the problem of morning hyperglycemia.

There are two approaches to improving the morning hyperglycemia in the presence of normoglycemia at bedtime - either changing to long-acting insulin (Protamine Zinc or Ultralente) or using split doses of NPH insulin. As a general rule, when the morning dose of intermediate-acting insulin (NPH or Lente) rises above 30-40 units, better control can be obtained by splitting the total daily dose into approximately two-thirds to three-quarters before breakfast, and one-fourth to one-third before the evening meal. In this patient, we should begin by changing to 45 units NPH before breakfast and 15 units NPH before the evening meal. Self-monitoring of blood glucose should be done before each meal and at bedtime. If possible, several days of testing should be recorded to obtain a pattern of results before making a change in insulin dosage. A guideline for adjustments of insulin using a mixture of NPH and Regular would be:

Time	Blood Glucose	Insulin
a.m.	high	increase afternoon NPH
noon	high	add regular to a.m. NPH
p.m.	high	increase a.m. NPH
bedtime	high	add regular to p.m. NPH

For low blood glucose results at times noted above, the insulin adjustment should be in the opposite direction. When Humulin NPH insulin is used, Humulin Regular should also be used in the mixture. Since the Humulin or synthetic types of insulin contain less impurities or contaminants than the animal source insulins, they have a shorter duration of action. It was a correct observation to note that the Humulin NPH insulin produced an increase in the morning hyperglycemia.

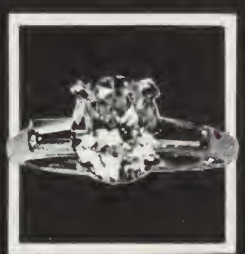
Another approach to this problem would be to change to one of the long-acting insulins (Protamine Zinc or Ultralente), and attempt to keep a once daily injection program. This type of program is usually not as successful as the split dose system and if attempted, the meal plan should be adjusted to contain an adequate bedtime snack; 2:00 a.m. blood glucose testing should be continued at lease four times a day until the readings are below 130 mg/dl almost 100 percent of the time, and there are almost no episodes of hypoglycemia. The glycohemoglobin test should be repeated about every eight weeks and should be within normal limits if well controlled.

A word of caution - it should be remembered that diabetic patients with autonomic neuropathy will often have hypoglycemic coma in the absence of the warning symptoms of nervousness, hunger, tachycardia, and sweatiness. These patients cannot be regulated as closely as others and it would be safer to accept blood glucose readings as high as 150 mg/dl to avoid hypoglycemic coma even on occasion.

DeWITT E. DeLAWTER MD
Editor

Physicians' Quality Assurance Board Actions appear regularly in MMJ.

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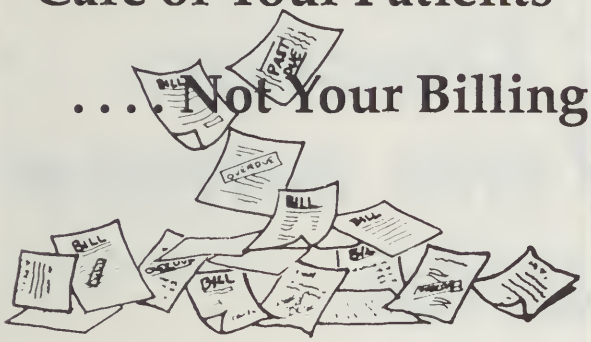
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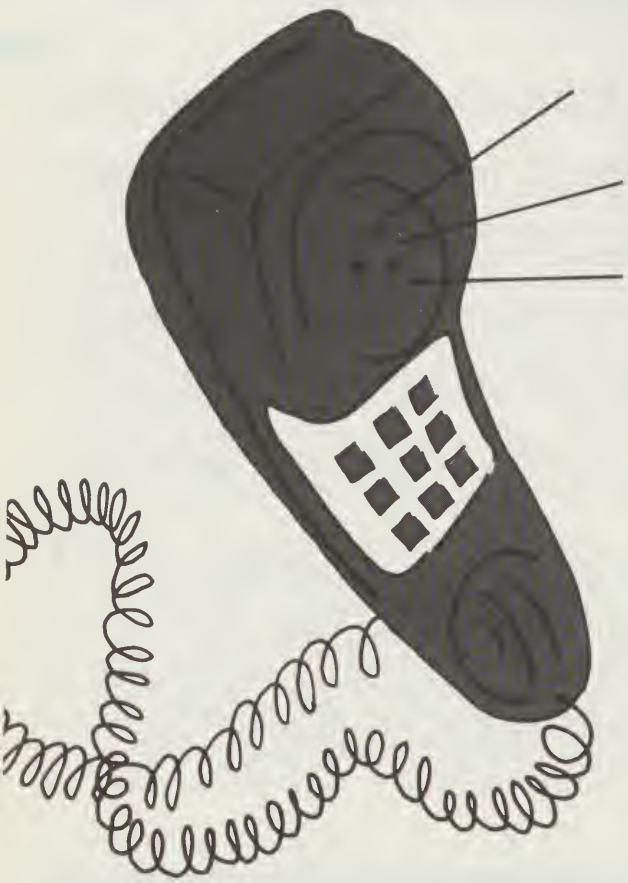
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Executive Director's Newsletter

November 1990

Federally Proposed Laboratory Regulations

Med Chi thanks all its members who wrote to the Health Care Financing Administration (HCFA) to request an extension of the comment period for the Clinical Laboratory Improvement Act (CLIA-88) regulations. Med Chi is especially grateful to Senator Barbara Mikulski for responding to Med Chi's request for assistance. Although the comment period ended on September 21, 1990, HCFA has been inundated with more than 25,000 letters and telegrams opposing these regulations.

Under this proposal, the federal government would oversee 300,000 laboratories-- a third of them located in doctor's offices. Labs performing simple and low risk testing would be subject to strict personnel requirements. Nurses, who now perform many lab tests, would no longer be able to do so under the new requirements.

If enacted, it is unclear how these regulations would impact Maryland's laboratory regulations. Because of the outpouring of complaints, however, Congress now must resolve the issues of cost, availability of labs in rural areas, timeliness of lab results and patient care management. Med Chi will keep you informed of further actions on this issue.

Medicare Reimbursement Changes

Effective April 1, 1990, physicians are required to accept Medicare assignment on claims for services provided to individuals who are also eligible for Medical Assistance.

On September 1, 1990, all physicians are required to submit claims for Medicare patients whether or not the physician accepts assignment. Physicians may not charge the beneficiary for preparing the claim and claims must be filed within one year from the service date or payment will be reduced by 10 percent. **Following this newsletter is a flier for your office informing your patients of this important change in Medicare. This flier can be mailed to your Medicare patients or posted in your waiting room.**

On September 4, 1990 the "model fee schedule" for physician services was printed in the *Federal Register*. The fee schedule is based on the resource-based relative value scale (RBRVS) and will replace the current reasonable charge payment mechanism.

By November 15, 1990, some physicians may be receiving a Comparative Performance Report (CPR). As part of the Omnibus Budget Reconciliation Act (OBRA) of 1989, Medicare carriers were required to monitor and profile physicians' billing patterns. Under the CPR program, the billing patterns of physicians will be compared to the billing norms for all physicians in the same specialty and locality. Only physicians who exceed the billing norms will be sent a CPR which will describe the procedures or services billed for at a higher rate than their peers. An explanatory letter will accompany the report and contain information on who to contact to discuss the report.

While CPR is being utilized strictly as an educational and informational tool and a response is not required, physicians are encouraged to contact the carrier to correct any misinformation.

A discussion of the new balance billing limits appears in Med Chi's Fall issue of the *Physician's Practice Digest*. The article includes formulas that will be applied for non-participating physician's services. The MAAC (maximum allowable actual coverage) will be replaced by new limiting charges starting January 1, 1991. The AMA will continue to fight these balance billing limits in the legislature by seeking to delay implementation of the new limits.

Release of Medical Records to Non-Custodial Parent

Med Chi has received numerous inquiries regarding the release of a child's medical records to a non-custodial parent. Although this is not mentioned in the medical records statute (HG Article, Section 4-301 et seq), Family Law Article, Section 9-104 provides:

Unless otherwise ordered by a court, access to medical, dental and educational records concerning the child may not be denied to a parent because the parent does not have physical custody of the child. (1987, ch. 337).

For additional questions about the release of medical records contact Med Chi at 301-539-0872 or 1-800-492-1056.

Training Update for Physician Office Laboratory Supervisors

The Eastern Area Resource Office of the National Laboratory Training Network and the Maryland State Department of Health and Mental Hygiene will present "Training Update for Consulting Supervisors to Maryland's Physician Office Laboratories" on Tuesday, November 13, 1990 at the Laboratory Workshop, Laboratories Administration in the O'Conor Building, 201 West Preston Street in Baltimore. This half-day lecture series and panel discussion is designed to review and update the responsibilities, methods and objectives of consulting supervisors who provide service to both physician office laboratories and the public. For additional information about this program contact Eunice Rosner at 215-363-8500 or Jack De Boy at 301-225-6080.

Physician's Practice Digest

This fall, Med Chi is introducing the premiere issue of the *Physician's Practice Digest* (*PPD*). This new publication, which will be sent to all Med Chi physicians, is designed to address the business concern of the practicing physician. The first issue includes information on medical waste management, Medicare legislation and effective marketing of a practice. Med Chi is interested in your reaction to this new publication and would appreciate your comments. If you have any suggestions, opinions or an interest in contributing articles to the *PPD*, please send correspondence to Editor, Physician's Practice Digest, 1211 Cathedral Street, Baltimore, MD 21201.

Med Chi Handbook and Bylaws

Copies of the Med Chi *Handbook* for 1990-1991 and the May 1990 edition of Med Chi's *Bylaws* are now available at no charge to all members. The *Handbook* provides a listing of all Faculty officers, committee members, component medical societies and specialty societies. Committee member listings in this year's *Handbook* include a complete address and medical specialty codes. The *Bylaws* are a guide to the Faculty administration and governing rules. For a free copy of either of these publications, contact Med Chi's Communications Department at 301-539-0872 or 1-800-492-1056.

Med Chi Compendium

Med Chi's *Compendium of Laws, Regulations, Opinions and Policies Governing the Practice of Medicine in Maryland* (1990 edition) is now available for all Med Chi members. An outstanding reference, the *Compendium* summarizes Maryland's health laws and regulations, outlines a collection of Med Chi and AMA ethical standards, lists current Med Chi policies, and provides guidelines for physicians and codes of cooperation for medical professionals. For a free copy of the *Compendium*, contact Bernadette LaRue at 301-539-0872 or 1-800-492-1056.

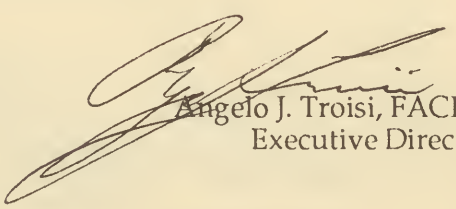
Doctor/Lawyer Partnership Against Drugs

On October 12, 1990 Med Chi physician representatives for the Doctor/Lawyer/Teacher Partnership Against Drugs met with their lawyer counterparts to discuss ways to bring doctor/lawyer education teams into schools to discourage 7th graders from using drugs. Additional physician volunteers are needed to participate in this program. For more information about how to become involved in this effort, contact your local component society or call Betsy Newman in the Public Relations Department at 301-539-0872 or toll free 1-800-492-1056.

Semiannual Meeting Awards

During the Semiannual meeting in September, Gerald A. Glowacki, M.D. was presented with the 1989 *Maryland Medical Journal* Best Article Award for his article, "Estrogen Replacement Therapy: Risk/Benefit Ratio for Treatment," which was featured in the July 1989 *Maryland Medical Journal.*

The winners of the Fifth Annual Med Chi Media Awards for Excellence in Medical Journalism were also announced at the meeting. The most outstanding entry in the daily newspaper category was "Mercy on Wheels" by Patrick Gilbert for *The Evening Sun.* In the magazine category, Larry Thompson of *Warfield's* won for The Ultimate Body Shop." The *Columbia Flier's* Lynne Salisbury was recognized for "One Day at a Time" in the non-daily newspaper category. "Just for the Health of It," by John Stupak for the Consultation Radio Network won in the Radio and Television Category.



Angelo J. Troisi, FACHE
Executive Director

To My Medicare Patients

Dear Patient,

Starting September 1, 1990, the Federal Government requires *all* physicians to submit your Medicare claim for you.

From now on, I will submit a claim to Medicare for you and the Medicare payment will be sent to you.

Please do not submit a claim to Medicare on your own.

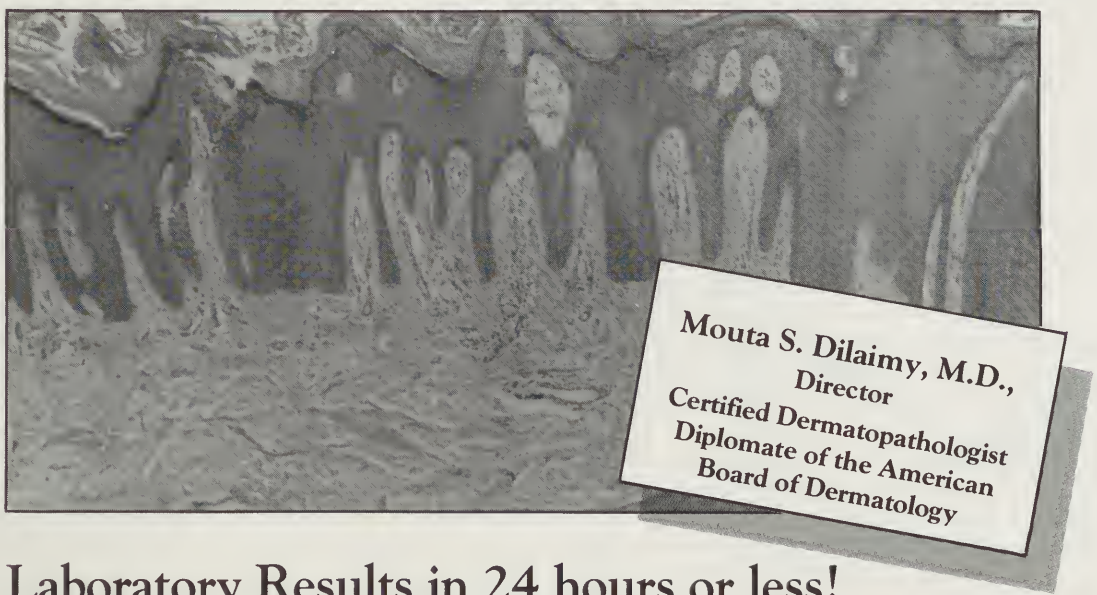
Thank you.

_____

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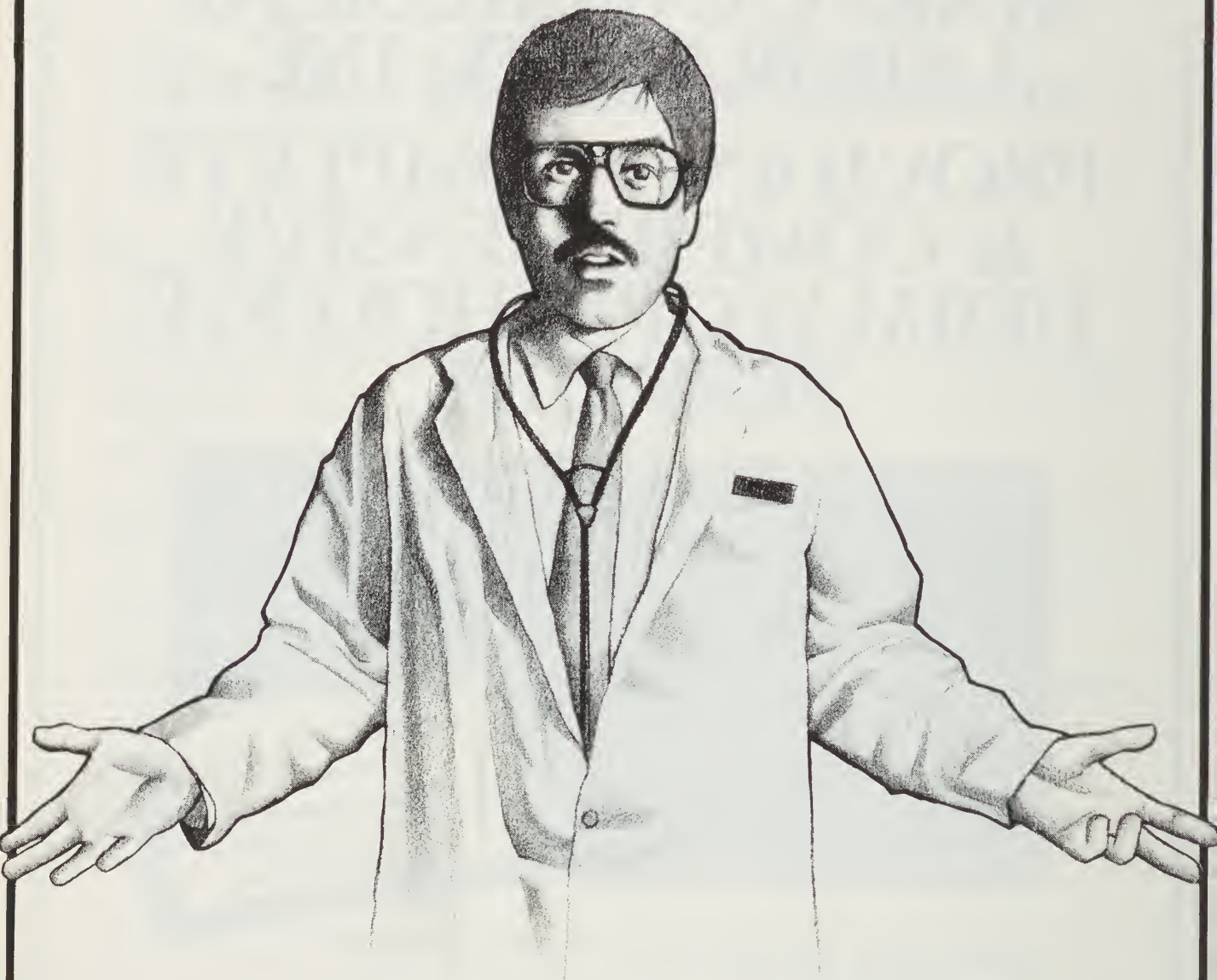
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The Physician Rehabilitation Program of the Medical and Chirurgical Faculty of Maryland: Twelve Years and Going Strong

Stanley R. Platman MD and Michael C. Llufrio CAC

The Medical and Chirurgical Faculty of Maryland established the Physician Rehabilitation Committee in 1978. This Committee is responsible for the Physician Rehabilitation Program which for the past twelve years has served the Maryland medical community on matters of physician impairment, including alcoholism, drug abuse, psychiatric illness, marital/family problems, organic impairments and physical handicaps. Maryland was one of the first states in the nation to offer such a service to its physicians.

The Program serves a dual purpose: (1) It assists in ensuring that Maryland consumers receive competent medical care and (2) it directs impaired physicians to the proper help and monitors their recovery. By monitoring the recovery of the physician participants, the Program is able to advocate for them on matters such as licensure, malpractice insurance, and hospital privileges.

Also under the purview of the Committee is the education of Maryland physicians on issues of physician impairment, as well as on substance abuse in general. An example of the latter is the highly successful conference, "Practical Clinical Management: Drug Abuse Education for the Primary Care Physician," which was held October 20-21, 1990. This conference, presented by the Committee on Drugs, was sponsored by the Physician Rehabilitation Program. Working in concert with the Committee on Drugs and the Committee on Alcoholism and Chemical Dependency, the Program has numerous plans for ongoing educational endeavors. One of these is the recently published newspaper, *Straight Forward,* which will be distributed on a monthly basis.

This issue of the *Maryland Medical Journal* is another means that the Physician Rehabilitation Program is using to educate Maryland physicians. Dr. Gallegos et al discuss the terrible toll that substance abuse by physicians can have on the family. Dr. Platman defines the role of the Medical Review Officer in identifying illicit drug use among employees. The reasons behind physician addiction to prescription drugs and how substance abuse by physicians might be prevented are addressed by Curtis Wright IV, MD, MPH. Finally, Stanley Platman MD and Michael Llufrio describe the evolution of the Physician Rehabilitation Program, and the roles and responsibilities of Med Chi's Committee on Physician Rehabilitation. The Committee would like to express its appreciation to Dr. Curtis Wright who has been instrumental in the planning and coordination of this dedicated issue.

The Program is continuing to grow. It will be working with the Focused Professional Education Program to help physicians receive individualized educational evaluations and retraining - again, working to provide patients with competent medical care. The Program's staff will be expanded in order that assistance can be rendered to more physicians then ever. After all, "Helping is our Business."

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The Effect of Physician Impairment on the Family

Karl V. Gallegos MD; Kathy Bettinardi-Angres MS, RN; and G. Douglas Talbott MD

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There are few studies on the effect of physician impairment on the marriage and the family. There is a need for research on both the functional and non-functional medical marriage, and treatment needs to be devised to focus on the special needs of the medical family.

Over the last three decades several hundred articles have been written about the impaired physician.[1] During the same period, many authors have written about the medical marriage, yet little attention has been paid to the effect of chemical dependence on the physician's family.

Much of the existing literature on the medical marriage suggests that physicians' long work hours are the source of conflict in the marriage. However, studies of physicians do not show a correlation between long work hours and unhappy marriages or divorces.[2,3] Vaillant found that 47 percent of the physicians he studied reported an unhappy marriage compared to 32 percent of controls.[3] Gabbard and Menninger contend that "blaming lack of time is a rationalization for troubles from other sources of conflict in the medical marriage." Physicians' long working hours may be more of an effect than a cause of marital problems.[4]

Only a few studies of physician impairment also address marriage and family-related issues. Winick reported that marital problems are a significant causative factor for physicians' drug abuse. He found that 71 percent of the spouses of drug-abusing physicians, and 60 percent of their office nurses were aware of the physician's drug use, but in none of the cases were measures taken to intercede.[5] Canavan has stated that the spouse and children of the impaired physician are usually the first to suffer from the side effects of chemical dependence, and they are the first to identify the impairment.[6] Modlin and Montes reported that the "disillusionment of expectations to gain succor in marriage, and the inability to grow in the traditional role of the father, and to achieve satisfaction as a parent from the parent/child relationship were antecedents to physician drug use."[7] Hall et al have stated that marital problems among addicted physicians result from both partners' unfulfilled dependency needs. The authors concluded that the major issue was the professionals' resentment of being treated differently by their spouses than they are treated by their patients and colleagues.[8]

Vaillant et al noted that physicians, especially those in primary care specialties, were more likely than non-physicians to be heavy users of drugs and alcohol, and to have relatively unsuccessful marriages. In their investigation, the presence of these "occupational hazards" appeared to be strongly associated with individual life adjustments occurring before medical school. Those physicians who had the least stable childhoods seemed to be especially vulnerable to these hazards.[3]

What comes first, the dysfunction in the marriage or the dysfunction in the chemically-dependent physician? What is the impact of the dysfunction on the family? What can be done to treat the problem? The purpose of this report is to: describe the progression of the family impairment as a function of the disease progression in the impaired physician; examine data from two treatment centers specializing in family issues related to physician chemical dependence; and draw conclusions to ultimately minimize our suffering and that of our colleagues and families.

Background

Lewis has described the healthy family as one that preserves the sanity and encourages the growth of both parents, and produces healthy children.[9] Healthy marriages are characterized by deep levels of intimacy. Waring defines intimacy as a "multifaceted dimension of an interpersonal relationship at a point in time, which is a composite of: conflict resolution, affection, cohesion, sexuality, identity, compatibility, autonomy, and expressiveness."[10]

Vincent has stated "many good doctors, when confronted simultaneously with both family and professional problems prefer the medical pressures."[11] He also has compared and contrasted the requirements of being a good physician versus being a good spouse and parent:

- "The good physician can control feelings. A good spouse and parent is able to express feelings.
- A good physician works hard. A good spouse and parent is available for companionship.
- A good physician is characterized by the following factors: success, status, prestige, professional esteem, and money. To fulfill each of these needs requires time away from the spouse and parent relationship.
- Patients want a physician who is available, helpful, and good humored."[11]

Thus, it quickly becomes apparent that the two systems compete selectively for essentially all of the physician's resources.

The Medical Marriage

Even when there is no chemical dependence in the family, the medical marriage is believed to be a family at high risk for impairment. Gabbard and Menninger have described physicians as individuals who are "conscientious about attending to the needs of both their practices and their families. They make futile efforts to please everyone that leave them with the feeling that they have pleased no one. They have an exaggerated sense of responsibility that makes them feel guilty about things beyond their control. Their unrelenting perfectionism and chronic self-doubt produce a profound sense that what they are doing is never enough."[12]

The physician marriage appears unique.[13] There is an overwhelming work priority in the physician's marriage and the non-physician spouse is recruited into activities to compensate for the absent physician-parent. There is difficulty communicating. The physician who is treated with special status while at work, is not so privileged or entitled at home. Frequently, physicians have an exaggerated overexposure to sex (through the examination of patients) which may also have a negative impact on physicians' marital relationships.

Finally, there are cultural expectations of the doctor's family.[14] Spouses and children of physicians feel they are expected to behave in ways different from the general population.

Chemical Dependence and the Medical Marriage

Generally, the family is affected by chemical dependence to the same extent that the dependent person has progressed in his/her illness. Initially, the chemically-dependent physician spends even less time at home and, therefore, neglects duties as a spouse and/or parent. As the disease progresses, more of the family's resources are spent on the addict's alcohol and drugs, and drug-using behavior. Eventually, the chemically-dependent physician will tend to rationalize, justify, and project blame onto others (particularly those around him or her). The family will begin to join in the addict's denial, and consequently begin to feel hurt, anger, disgust, frustration, and guilt about feelings they have toward the addicted physician. Progressively, family members are likely to shield the addict and themselves from exposure and embarrassment. When family members protect the addict from the consequences of his or her disease, they enable the addict to stay sick.

Frequently, family members are afraid to intervene on behalf of the patient because they fear the anger of the addict, who may become physically and verbally intimidating or abusive. The family of the impaired physician frequently worries about others in the community finding out, about the shame, and about the loss of financial well-being and status. At this point, if the family does not overcome these fears and intervene on behalf of the impaired physician, the addict gains a destructive power over the family, and the family becomes hostage.

Codependence

In recent years, attention has been directed to the

understanding and treatment of the family members of chemically-dependent individuals. There appears to be a reflexive adaptive behavior by the family as it attempts to live with the chemically-dependent person. This maladaptive behavior is referred to as codependence and may take an extraordinary emotional toll.

Codependence is "a pattern of painful dependence on compulsive behaviors and on approval from others in the search for safety, self-worth and identity. Recovery from this condition is possible."[15] Among the characteristics ascribed to adults raised by a chemically-dependent parent are: fear of losing control; fear of feelings; fear of conflict; an overdeveloped sense of responsibility; feelings of guilt when standing up for oneself; an inability to relax, let go, or have fun; harsh self-criticism; living life from the stance of a victim; the tendency to be more comfortable with chaos than security; the pressure to assume an all or nothing point of view; suffering a backlog of grief; and a tendency to react rather than to act, and an ability to survive.[16-18]

Treatment of the Family

Two major issues arise when dealing with the families of recovering alcoholics and addicts: (1) Is there another chemically-dependent family member who also needs help? and (2) What impact has the patient's disease had on the family? Both issues need to be explored in detail during the assessment and treatment process. When the family is involved in the recovery process, family members have an opportunity to see that they are not alone or so unusual. Family therapy combats the sense of isolation and allows family members to acknowledge the feelings of anger, shame, guilt, disappointment, or fear common among families of chemically-dependent individuals. Patients will frequently use any excuse for not completing treatment or avoiding key therapeutic issues. Often the family can be helpful in getting the patient to be more cooperative, more honest, and more open. Family involvement facilitates the decompression of painful issues and allows improved communication to occur. It is not unusual for many couples to continue family therapy in the aftercare period.[19]

Family therapy has been shown to be an effective tool in treating the impaired physician.[20,21] The tasks of the family members are to: confront and deal with the emotional pain from the past, as well as the anxiety and apprehension over the future; reestablish communication; gain the ability to give one another support; and reduce the fear that intimate communication will lead to rejection or a competitive disadvantage.

Self-help groups are also available for family members. Al-Anon[22] is for family members of alcoholics, and Nar-Anon is for the family members of addicts. Family-related issues are most frequently cited as excuses for relapses in treatment outcome studies. Most therapists feel that treating the family unit as a system provides the most beneficial outcome.

Analysis of Impaired Physician Marriage and Family Data

Currently, an ongoing collaborative research effort on the impaired physician is underway at the Talbott-Marsh Recovery Center (TMRC), in Atlanta, Georgia and the Impaired Physicians Program, Parkside Recovery Center of Woodridge, Illinois.

Together these two centers have evaluated and treated more than 2,500 physicians and almost 4,000 health professionals. This database is a rich source of information relative to physician impairment and recovery.

Since 1974, more than 2,200 physicians have been referred to the Georgia Impaired Physicians Program (now located at the Talbott-Marsh Recovery Center) for an assessment of impairment. Ninety-eight percent were U.S. citizens. Approximately 3 percent had neither chemical dependence nor a psychiatric problem. A primary psychiatric disorder was exhibited by 7 percent. The remaining 90 percent were chemically dependent. The study population is comprised of only the chemically-dependent physicians.

The mean age of the study population was forty-four years, with the mean reported age of first alcohol or drug use being seventeen years. Most (95 percent) were male, and 96 percent were white. Sixty percent had had at least one previous chemical-dependence and/or psychiatric treatment. In addition, approximately 50 percent had a legal and/or licensing problem related to their substance abuse.

Most of the chemically-dependent physicians were married (65 percent), but only 28 percent were in their first marriage. Fourteen percent were divorced, 6 percent were separated, and 10 percent had never been married. Of those physicians who were married, divorced or separated, 82 percent reported significant marital discord as a result of their substance abuse. Factors of conflict presented by the study population included those referred to by Angres (Table) as well as issues specific to the substance abuse behavior but directed at the family, such as dishonesty, concealment of drugs, infidelity, and violence.

Although 70 percent cited alcohol as a drug of abuse, only 25 percent abused alcohol exclusively. More than 73 percent of the physician-patients reported they abused two or more drugs. A narcotic was the drug of choice for 48 percent. Approximately 40 percent of the study population reported administering their drug of choice intravenously or intramuscularly. Most of the physicians who used drugs reported obtaining their drugs from the workplace.

A sampling of 139 physicians discharged from the program in 1988 was undertaken to learn more about addiction in first and second degree relatives. Eighty-six percent reported a family history of addiction with 55 percent reporting chemical dependence in at least one parent. When both parents were reported to have been chemically dependent, the physician-patient was more likely to have begun substance abuse at an early

age and to have presented for treatment at a younger age. When one or more older siblings were reported to be chemically dependent, the physician-patient was more likely to be a poly-drug addict, with first drug use at a relatively early age, and first treatment at an early age.

Recovery and the Medical Marriage

Angres[23] compared the responses of recovering physicians and their spouses to those of a sample of "normal" physicians questioned by Gabbard and Menninger[3] (Table). The purpose of this study was to determine if there was a difference between the couples from the recovering group (N=50) versus the normal group (N=111). All recovering physicians and their spouses had been exposed to family therapy compared to less than half of the normal couples.

Each respondent was asked to rate the sources of conflict in the marriage on a scale from zero to five, according to their importance in his or her marriage. A zero indicated the issue was "not applicable" as a source of conflict within the respondent's marriage, and a five indicated it was "of paramount importance."

Gabbard and Menninger found that both physicians and spouses from normal groups ranked the sources of conflict fairly similarly. For example, "lack of time for fun, family and self" ranked first on both lists. However, there were two major discrepancies. First, physicians reported seeing the "amount of time away from home at work" as a much more important source of conflict than spouses did. Second, spouses considered "lack of intimacy" a much more serious problem than the physicians did. The four areas of greatest disagreement in order from most to least disparate were: (1) "amount of time away from home at work"; (2) "lack of intimacy"; (3) "lack of shared responsibilities for children and for work around the house"; and (4) "money management."

The recovering couples ranked sources of conflict fairly similarly also. For example, "lack of intimacy" was ranked first, followed by "tension in the family home" and "frequency in sexual relations." The four areas of greatest disagreement in order from most to least disparate were: (1) "lack of time for fun, family and self"; (2) "quality of sexual relations"; (3) "finances"; and tied for fourth were "money management" and "lack of shared responsibilities for children and for work around the house."

In the normal group, the complaint of lack of time due to the demands of practice may be a function of externalizing the conflicts of the marriage to factors outside of the marriage. The recovering group saw lack of intimacy as the major source of conflict in the marriage. Angres has concluded that the recovering physician's marriage and the normal physician's marriage are probably the same in terms of amount of conflict. Both marriages are impaired by the practice of medicine and the inherent problems associated with being a physician. However, recovering physicians and their spouses, perhaps because of their exposure to family therapy while in treatment for their addiction, appear to have more insight into their problems and the solution to these problems.

Conclusion

Unique stressors, predisposing psychological vulnerabilities, genetic loading, and a culture permissive of substance abuse are predisposing factors to an impaired medical marriage. Even when the risk factors are minimized, the medical family may be programmed for malfunction. Physicians are chosen selectively and trained to enter a profession which is rigorous and objective. On the other hand, we enter into marriage and parenthood without any formal training, peer review, or codes of acceptable practice in areas of intimacy, sharing, and loving.

Chemical dependence increases the risk for catastrophic conflicts and reduces satisfaction and gratification in medical marriages. Treatment and recovery appear to make couples more aware of relationship needs and more capable of solving problems within the marriage.

There needs to be more research on both the functional and the nonfunctional medical marriage. Physicians need to be trained early in their career about the occupational risk factors and their contribution to an impaired family system. Treatment needs to be devised to specifically focus on the special needs of the medical family. Physicians who are recovering from chemical dependence and their family members need family therapy.

Table. Ranking of Sources of Conflict Cited by Physicians and Their Spouses

	"Normal" Physicians (N=111)[1]	Recovering Physicians (N=50)[2]	Spouses of "Normal" Physicians (N=111)[1]	Spouses or Signif. Others of Recovering Physicians (N=50)[2]
Lack of time for fun, family and self	1	9	1	3
Amount of time away from home at work	2	6	8	6
Frequency of sexual relations	3	4	4	4
Finances	4	8	5	5
Money management	5	5	3	7
Tension in the family home	6	2	7	2
Lack of intimacy	7	1	2	1
Lack of shared responsibilities for children/around house	8	7	6	9
Philosophy of child rearing	9	10	9	10
Quality of sexual relations	10	3	10	8

1. Gabbard GO, Menninger RW. Medical Marriages. Washington, DC: American Psychiatric Press, 1988.
2. Bettinardi-Angres K. The Medical Marriage and Chemical Dependency. In press. 1990.

References

1. Robinson JJ. Annotated bibliography on physician impairment. Chicago: American Medical Association, 1988.
2. Garvey M, Tauson VB. Physician marriages. J Clin Psychol 1979;40:129-131.
3. Vaillant GE, Sobowak NC, McArthur C. Some psychological vulnerabilities of physicians. N Engl J Med 1972;287:372-375.
4. Gabbard GO, Menninger RW, Coyne L. Sources of conflict in the medical marriage. Am J Psychiatry 1987;144:567-572.
5. Winick C. Physician narcotic addicts. Social Problems 1961;9:174-186.
6. Canavan DI. The impaired physician and the family. J Med Soc NJ 1983;80:637-638.
7. Modlin HC, Montes A. Narcotic addiction in physicians. Am J Psychiatry 1964;121:358-363.
8. Hall RCW, Stickney SK, Popkin MK. Physician drug abuser. J Nerv Ment Dis 1978;166:787-793.
9. Lewis J. How's your family? New York: Brunner/Mazel, 1979.
10. Waring, EM, McElrath D, Lefcoe D, Weize G. Dimensions of intimacy in marriage. Psychiatry 1981;44:169-75.
11. Vincent MO. A well doctor's family: The struggle for intimacy. Md Med J 1986;35:111-115.
12. Gabbard GO, Menninger RW. Medical marriages. Washington, DC: American Psychiatric Press, 1988.
13. Fine C. Married to medicine. New York: Athenum, 1981.
14. Lorch BD, Crawford LE. Marriage to the physician: The stress and responsibilities. Colorado Medical Journal 1983;84-86.
15. Nash G. Personal communication, 1990.
16. Beattie M. Codependent no more. Century City, MN: Hazelden Educational Materials, 1987.
17. Black C, Buckley S. The interpersonal consequences of being an adult child of an alcoholic. Int J Addict 1986;21(2):213-236.
18. Woititz JG. Adult children of alcoholics. Hollywood, FL: Health Communications, Inc., 1983.
19. Gallegos KV, Keppler JP, Wilson PO. Returning to work after rehabilitation: Aftercare, follow-up, and workplace reliability. Occup Med 4(2):357-370.
20. Glick ID, Borus JF. Marital and family therapy for troubled physicians and their families: A bridge over troubled waters. J Med Assoc Ga 1984;251:1855-1858.
21. Talbott GD. The impaired physician: The role of the spouse in recovery. J Med Assoc Ga 1987;76:190-192.
22. Al-Anon faces alcoholism. New York: Al-Anon Family Headquarters, Inc., 1989.
23. Angres KB. The medical marriage and chemical dependency. In press, 1990.

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The Role of the Medical Review Officer in the Workplace

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Drug testing is now a firmly entrenched part of the American workplace. It is the role of the Medical Review Officer to decide whether a test is positive and meaningful in terms of illicit drug use.

People don't check their substance abuse problems at the door when they enter the workplace. In a recent study of seven transportation companies, the rate of drug-positive urine specimens varied from 3 percent to 16 percent.[1] These rates included pre-employment, random, and probable-cause drug testing. Employees caught up in substance abuse tend to be absent from their jobs up to sixteen times more often, claim three times as many sick benefits, and file five times as many workers' compensation claims as other employees.[2] The National Institute on Drug Abuse (NIDA) estimates that one in five workers aged 18-25, and one in eight workers aged 26-34 use drugs on the job. Not all people with a substance abuse problem fit the traditional stereotype. For example, a serious cocaine user is typically:

- well-educated (14 years of education),
- employed (77 percent),
- well-paid (37 percent earn over $25,000 annually), and
- engaged in illegal activities to support the drug habit (56 percent).

Eight million American workers were tested for drugs in 1989. Nearly double that number, fifteen million, are expected to be tested in 1990. As recently as five years ago, drug testing in the workplace seemed likely to be just another idea that would come and go in the war on drugs. Today, it is a firmly entrenched part of the American workplace and growing by the minute. A survey by the American Management Association found that 50 percent of U.S. companies test either job applicants or current employees for drugs, a jump from 21 percent four years ago. A majority of Americans, increasingly alarmed by illicit drug use, favor drug testing in the workplace.[3] In a Gallup poll conducted in December 1989, over 60 percent of respondents favored such testing. It is evident that even employees are beginning to recognize the problems generated by substance abuse in the workplace. David Fontaine, Executive Director of the Baltimore Area Labor-Management Committee, noted in the Committee's *Annual Report*

1989-90 that "the workforce is shrinking and getting older, and the new entrants will include more women, minorities, and immigrants. New workers will need more qualifications to get the new jobs and will have to be retrained three to five times in their worklife. We will have to build systems that provide child and family care, *design strategies that realistically attack drug and alcohol abuse and rising healthcare costs.....*" (emphasis added).

Hospitals frequently have impaired employees, and this all too often includes physicians. The Johns Hopkins Hospital will be the first in the nation to require its medical staff to undergo random alcohol and drug screening. The new policy affects all physicians with staff privileges - about 1500 full- and part-time physicians. There are physicians at Hopkins that see the policy as intrusive. Many are concerned that the error rate will be high and that there will be difficulties in distinguishing recreational use from impairment. In addition, it is unlikely that routine testing will assay the drugs most likely to be used by physicians. The American Civil Liberties Union (ACLU) called the Hopkins plan "unfortunate." However, individuals often show evidence of substance abuse in their urine long before they are noted to be impaired by their peers and, therefore, identification can assist in early treatment and the monitoring of potentially dangerous physicians.[4] The planned implementation of this policy at Hopkins has been delayed, and opposition by the academic and medical staff has been growing.[5]

The Law

On September 15, 1986, President Reagan issued Executive Order 12564 mandating a drug-free federal workplace with the intent that the federal workforce would serve as a model for all American businesses. The Executive Order states that all employees testing positive for drug use should be referred to appropriate treatment or counseling, and requires all federal employees to refrain from using illegal drugs on or off the job. The Order limits testing to those drugs listed in Schedules I and II of the Controlled Substances Act and, in practice, has limited federally mandated testing to marijuana, cocaine, opiates, amphetamines and phencyclidine (PCP). On July 11, 1987, Congress passed legislation affecting implementation of the Executive Order under Section 503 of the Supplemental Appropriations Act of 1987, Public Law 100-71, in an attempt to establish uniformity among federal agency drug- testing plans with regard to reliable and accurate drug testing, employee access to records, and confidentiality of drug test results. In addition, the legislation established a means for centralized oversight of the federal government's drug-testing program.

The rationale for urine drug screening derives, in part, from the experience of the military. In 1980, 27 percent of military personnel reported using an illicit drug within the month preceding the survey; in 1985, only 9 percent reported similar use. During the years between these two surveys, a program of urinalysis was instituted. In recent interviews, 64 percent of military personnel reported believing that urinalysis had reduced drug use in the military.[6] In the most recent survey, released in July 1988, illicit drug use in the previous month was reported by only 5.3 percent, representing a decline in drug use of more than 80 percent over the eight year period.

However, it is important to note that much controversy exists around drug testing in the workplace. As recently as May 16, 1990, U.S. District Judge Gerhard A. Gesell ordered the Justice Department to hire a lawyer even though the lawyer had, as a matter of principle, refused to take the drug tests required of all applicants for attorney jobs in the Department. Judge Gesell ruled that such testing is unconstitutional if the job has nothing to do with police work, public safety, or official secrets.[7] On the same day, Maryland legislators urged the state's personnel secretary to meet with state employees over the proposed drug- testing program, even though the testing was only to be for those employees in "sensitive" jobs. On June 6, 1990, a federal judge in Manhattan declared unconstitutional a New York City Transit Authority policy, issued in the mid-1980s, that mandated marijuana testing for all applicants and employees, even those holding jobs unrelated to safety. The decision affected more than 2,000 people who tested positive for marijuana use from 1984 to 1987.[8]

The Council on Scientific Affairs of the American Medical Association (AMA) addressed a number of employee drug-testing issues in 1987.[9] Constitutional issues of search and seizure, invasion of privacy, and due process were major concerns but the Council's report noted that the law is complicated and the ethical issues are being affected by social change. It would appear that at this time, the AMA advises employee testing only if the outcome is related to motivating employees to seek appropriate assistance and treatment. The AMA has opposed mandatory screening for drugs except in specific cases such as pre-employment testing of people whose jobs affect the health and safety of others, the monitoring of compliance as part of a treatment program, and in situations where there is clear evidence of a problem.

The Role of the Medical Review Officer

Drug testing can be used in a variety of ways. The most common is the testing of job applicants. Response to a positive result in these cases is almost universal; the applicant is simply not hired. Testing of current employees is more complicated. At some companies, a positive test is grounds for immediate discharge. More commonly, employees testing positive are funneled into mandatory drug treatment programs and then carefully monitored. The physician, in his or her role as a Medical Review Officer (MRO), is the essential decision maker, as it is the MRO who decides whether a test is positive and meaningful in terms of

illicit use. It is wise for the MRO and the employer to develop jointly the significant worksite policies to be used in addressing these issues. The models utilized by most MROs are based on the federal experience and the NIDA guidelines.[10] However, nonfederal employers may expand the number or type of drugs to be tested.

The Medical Review Officer role is not new and was, in fact, developed over twenty years ago by Richard Reigard MD who served as the Federal Department of Transportation's MRO and as the Federal Air Surgeon. The role has broadened as drug testing in the workplace has become more common, and since *Mandatory Guidelines for Federal Workplace Drug-Testing Programs* was published in the Federal Register on April 11, 1988.

The *Guidelines* provide for the use of a Medical Review Officer. The MRO plays a critical role in assuring that the requirements of the *Guidelines* are met. The MRO must be a licensed physician with knowledge of substance abuse disorders. He or she works with management and may refer those with problems for counseling and treatment. The MRO acts as a vital screen to assure that management is not notified of a positive result on a drug test until the MRO is satisfied that it resulted from illegal drug use. The MRO's review may include a medical interview, a review of the individual's medical history, or a review of other relevant biomedical factors.

As required by the *Mandatory Guidelines*, the MRO's specific responsibilities are:

1. Receive confirmed positive results from the laboratory.
2. Request, if needed, a quantitative description of test results.
3. Receive a certified copy of the original chain of custody.
4. Review and interpret positive test results.
5. Inform the tested individual and provide test results.
6. Conduct, if necessary, a medical interview with the tested individual.
7. Review the individual's medical history, or any other relevant biomedical factors.
8. Give the individual an opportunity to discuss test results, but not necessarily face-to-face.
9. Order a reanalysis of the original sample in a NIDA certified laboratory, if necessary.
10. Consult with others if a question of accuracy arises.
11. Consult with laboratory officials.
12. Do not accept urinalysis results that do not comply with the *Mandatory Guidelines*.
13. Do not declare as positive an opiate-positive urine without clinical evidence. (Ingestion of a variable quantity of poppy seeds, which contain small amounts of morphine, can produce a positive result. The presence of needle tracks would obviously provide clinical evidence.)
14. Determine whether a result is scientifically insufficient.
15. Determine whether a result is consistent with legal drug use. (For example, a cocaine-positive urine may follow proper medical use. Cocaine is still employed as a local vasoconstrictive anesthetic in bronchoscopy or dentistry, and not infrequently, amphetamines may be used for treatment of resistant depression or narcolepsy.)
16. Forward results of verified positive tests to management officials empowered to recommend or take administrative action.

The role of the MRO can be expanded if contracted between the MRO and the specific business entity. It is important to note that the MRO does not adjudicate, punish, or otherwise arrange consequences for employees whose drug-positive urines apparently do not result from medical treatments or from problems in handling or analyzing samples.

In brief, the MRO determines whether a reason other than illegal drug use explains a drug-positive urine. If the MRO verifies illegal drug use, the case is referred to the employer's Employee Assistance Program (EAP) and to the appropriate management official. If illegal drug use is not verified, the test result is deemed negative, the employee is informed, and no further action is taken. It is essential that the employee understands and gives consent to the MRO's role. The employee should be aware that if there is no reasonable medical reason (e.g., legitimate prescription) or other reason (e.g., breakdown in chain of custody or laboratory error) to account for the positive results, the results will be disclosed to management and others as required by the plan or contract. Any medical information that is not specifically related to the use of illegal drugs will be treated as confidential and not disclosed. Problems related to the role of the MRO have received limited attention in the medical literature,[11,12] although a new journal, *MRO Alert*, is to be published in the near future.[13]

Clinical Difficulties in Interpreting Tests

Most "acceptable" drug-positive urines come from patients receiving legitimate medical treatment (e.g., methadone-positive urines from patients receiving methadone maintenance treatment; codeine- and/or morphine-positive urines in patients with codeine prescriptions for cough or pain; THC-containing urines in cancer patients prescribed tetrahydrocannabinol for anti-emetic purposes). Phencyclidine (PCP) is not approved for any medical use and, therefore, is always a drug of abuse. Natural opiate drugs are derived from poppy plants. Poppy seeds commonly used on bagels frequently contain sufficient amounts of morphine to produce detectable concentrations of morphine in urine, even though the amount of ingested morphine is insufficient to cause any behavioral

effect in the individual. Either codeine or morphine may be found in urine for a few days after eating poppy seeds. Therefore, a positive urine resulting from poppy seeds is *not* a false positive, since the drug is actually present in detectable amounts. In contrast, heroin, an acetylated semisynthetic product of morphine, does not occur in poppies. Its metabolic product, 6-monoacetylmorphine, also does not occur after poppy seed consumption, so the presence of that compound in urine proves illegal heroin use. However, absence of the metabolite does not rule out heroin use as it only persists briefly in the body and a heroin user may have an opiate-positive urine which no longer shows the metabolite.

The duration of time that a drug is detectable by urinalysis is complicated by many variables. Such a determination must take into account the pharmacokinetics of the drug, as well as individual variation in the absorption, distribution, metabolism, and excretion of the drug and its metabolites. The medical use of cocaine, morphine, codeine, or amphetamines will lead to detectable amounts in urine for several days. The sensitivity of urine assay methods generally available today allows detection of cocaine or amphetamine use for a period of one to three days and opiate use for two to four days. Benzoylecgonine can be detected in the urine at levels of 300 ng/ml for up to twenty-two days after the last cocaine use.[14]

False negatives can be produced by errors in collection or laboratory analysis. Drug abusers can also generate false negatives by substituting another person's urine for their own. Drug-related deception is not uncommon. Techniques to address these issues include direct observation of urine collection, sampling of the urine temperature, and creatine and osmolarity measurements of the urine.

The Business of Being an MRO

Many MROs have been employees of government agencies or of companies. Today, there is an increasing trend to have MROs be independent from the entity testing its employees and from the laboratory assessing the urine samples. The value of this independence is that the MRO can more narrowly define his or her role and not become an instrument of management or the laboratory. It is also usually advisable to have the MRO independent of the company's EAP or treatment program. The MRO contracts with a specific company to perform those roles generally defined in the federal *Guidelines*, although the role may be expanded in terms of the drugs to be tested and the amount of direct clinical evaluation. Charges are usually based on a cost per urine evaluated regardless of the urine being positive or negative. However, charges may be higher for those urines which are not routinely or randomly provided. At this time, the physicians in an MRO organization are legally protected by their customary malpractice insurance, although some MROs may have specific liability insurance coverage.

The cost of providing MRO services is increasing due to the desire of companies for rapid response, the need for technology to assure that all the complicated steps in determining the presence of a positive test have been completed, and the fact that many companies are national in operation and discussion with an employee may require long and expensive telephone conferences.

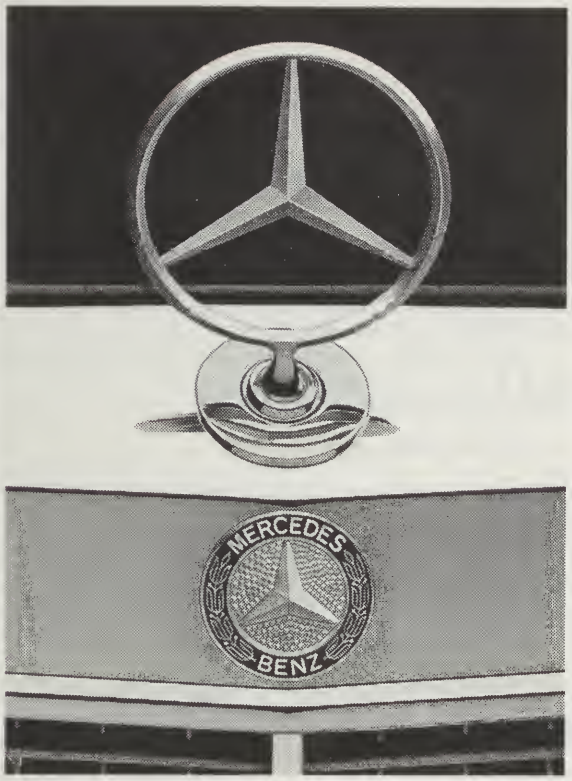
Although the clinical information for evaluating the five types of drugs identified by Reagan's Executive Order is available, skill and experience are required, especially for MROs willing to evaluate a wider spectrum of drug abuse. MROs should be thoroughly versed in addictions, toxicology, laboratory methodology, and specific regulations and laws. They should put forth much effort to establish excellent relations with the testing laboratories and collection sites. Adequate communication is essential to avoid false negative and false positive results.

Summary

MROs need to be knowledgeable and experienced in the area of substance abuse. This relatively new field raises many clinical issues, complicated by legal and ethical issues. It is advisable that MROs be independent from the companies, laboratories, and collection sites with which they contract or to which they relate in the process of performing their evaluations.

References

1. Whitney J. Drug use patterns found in criminal justice and workplace drug-testing programs. Calif Assoc Toxicol Newslett 1989;Fall:21-28.
2. U.S. Department of Labor. What works: Workplaces without drugs. 1988.
3. Henderson R. Testing mentality. Baltimore Sun, To Your Health. (suppl.) May 22, 1990.
4. Hopkins' drug-testing policy urges those who need help seek it. AHA News. March 5, 1990.
5. Miller S. Hopkins drug testing delayed. Evening Sun. July 3, 1990.
6. Bray RM et al. Highlights: 1985 worldwide survey of alcohol and nonmedical drug use among military personnel. Research Triangle Institute, Research Triangle Park, North Carolina. 1986.
7. Denniston L. Drug testing for federal jobs limited by judge. The Sun. May 16, 1990.
8. Wolff C. Judge rejects broad testing for drug use. New York Times. June 7, 1990.
9. Council on Scientific Affairs. Issues in employee drug testing. JAMA 1987;258(15):2089-2096.
10. NIDA. Medical review officer manual: A guide to evaluating urine drug analysis. DHHS Publication No. 88-1526, September, 1988.
11. Osterloh JD, Becker CE. Chemical dependency and drug testing in the workplace. West J Med 1990;152(5):506-513.
12. Clark HW. The role of physicians as medical review officers in workplace drug-testing programs: In pursuit of the last nanogram. West J Med 1990;152(5):513-524.
13. Shults TF (ed.). letter, MRO Alert August 1, 1990.
14. Weiss RD, Gawin FH. Protracted elimination of cocaine metabolites in long-term, high-dose cocaine abusers. Am J Med 1988;85:879-880.



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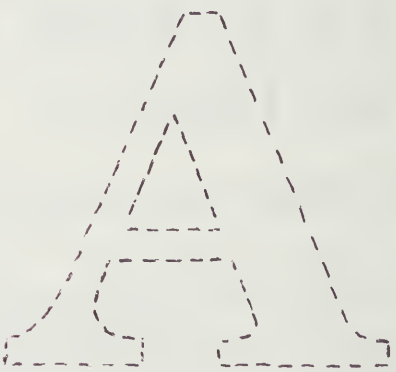


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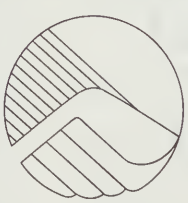
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Physician Addiction to Pharmaceuticals: Personal History, Practice Setting, Access to Drugs, and Recovery

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Specialists in the field of anesthesiology, emergency medicine, and general or family practice are at increased risk of addiction. They may manifest a pattern of habitual overwork and/or grandiosity, have unrestricted access to drugs, and initiate use through self-medication.

Impaired physicians are to the rest of the profession as canaries were to the coal miners of an earlier generation. Until we can determine the risk of addiction to drugs for a specific individual *before* the individual is exposed to them, we must rely on the experience of the most vulnerable individuals in our occupational cohort to learn how to protect ourselves from addiction to the chemical tools of our trade. This article describes the current state of knowledge regarding physicians at risk for addiction to pharmaceuticals (prescription drugs), some ongoing studies, and some of the measures that have been tried to manage that risk.

Addiction to alcohol and other drugs of abuse has been a major concern of the profession ever since the initial American Medical Association (AMA) initiatives in this area in the 1970s.[1] The impaired professionals programs in Maryland and other states were influenced by a model which included inpatient rehabilitative treatment, participation in Alcoholics or Narcotics Anonymous, contingency contracting, individualized case management, and peer group therapy. Studies of such programs by Talbott, Gualtieri, and others,[2-4] have shown that the incidence and prevalence of alcoholism (DSM-IIIR alcohol dependence) among physicians is nearly that of the general population, and that the prognosis is for complete rehabilitation following adequate treatment for the majority of physicians dependent on alcohol or a combination of alcohol and other drugs. Physicians are neither especially vulnerable to alcoholism nor protected from it, and can be rehabilitated if their illness is recognized and effectively managed. This conclusion is consistent with the general literature on alcoholism, and the clinical experience of most treating physicians.

The literature on drug abuse and dependence among physicians, however, has contradictions not found in the alcoholism literature. Drug addiction has been described as both a serious occupational risk of all physicians, and as a problem which is rare among professionals.[5] Medical students and young physicians have been described as being less likely than their peers to indulge in recreational use of illicit drugs,[6] yet another article has recommended the

withdrawal of meperidine from the market as being too likely to addict nurses and doctors.[7] Most of the divergent opinions have resulted from articles which generalize from data collected on small populations in treatment, about the risk of addiction among all physicians.

Who is at Risk?

One of the oldest screening programs for detecting physician impairment due to addiction was established by the Federation of State Medical Boards of the United States (FSMB).[8] The screening questions used are given in Table 1, and are directed toward the identification of prevalent or evolving cases of impairment.

The questions, with some variations, are part of the data set collected by the FSMB in collaboration with the AMA for the Physician Screening Data Base, a clearinghouse for interstate communication regarding disciplinary information which was mandated by the Federal Health Care Quality Improvement Act of 1986. While both the FSMB and the AMA are limited in their ability to participate in epidemiologic surveys by their duty to protect the confidentiality of information supplied to the Data Base, both do participate in several ongoing projects. One such project, reported on in the *MMJ* in 1987, is the Pilot Impaired Physician Epidemiologic Surveillance System[8] which surveys physicians in treatment in an attempt to add to the available information on physicians at risk for alcohol and drug problems. A second project, currently being funded by the National Institute on Drug Abuse, is looking specifically at drug dependence among physicians on a national scale; results are expected to be available in 1991.

Until such national data are available, the only general source of data is from states having active impaired professionals programs.[2-4] Such programs provide assistance in evaluation, rehabilitative treatment, posttreatment monitoring, and advocacy for the impaired professional. They are the major source of information about drug use by physicians. However, it is risky to draw conclusions based on analysis of such data since such programs identify only physicians whose addiction was detected.

Table 2 gives the risk of addiction by self-declared specialty compared to the general physician population. It includes physicians identified by a Georgia program,[2] a California program,[3] an Oregon program,[4] and in a study of 100 alcoholic and drug-dependent women in medicine.[9] The specialties overrepresented in the identified cases are anesthesiology, family or general practice, emergency medicine, and psychiatry. In spite of the agreement of several programs, the disadvantage of self-declared specialty is that while closely corresponding to actual specialty status for tightly controlled, credentialled, hospital-based specialties like anesthesiology, there is a high rate of misrepresentation of specialty in other settings. In addition, the increased risk seen among physicians in general practice and emergency medicine may reflect preferential choice of this type of practice by professionals *after* their impairment develops rather than an a priori increased risk.

Another source of data on relative risk is in articles prepared by programs treating a substantial number of impaired professionals. Vogtsberger[10] and Brewster[5] have reviewed a number of surveys published by such programs and have discussed the limitations of this data in detail. Many such articles contain case reports of a pattern of behavior which recurs with some frequency, a pattern which Talbott has described as the "M-Deity" syndrome[2] and Jones as "precipitating factors."[11] This pattern consists of a physician who shows considerable promise in medical school, training, and early career, followed by a pattern of compulsive overwork leading to difficulties with family, friends and, eventually, with peers. Words like "acheiver," "successful, " "perfectionist," "driven," "overworked," and, ultimately, phrases like "grandiose about his practice," and "overworked, then resentful of extra duties" are used in describing such physicians. It is not clear from this literature if this is a portrait of a physician at increased risk of addiction, or the portrayal of the gradual loss of social attachment and the obsessional

Table 1. Questionnaire of the Federation of State Medical Boards (FSMB) of the United States

1. Have you ever been treated or hospitalized for mental illness or drug or alcohol abuse?
2. Have you ever been convicted of violation of any national, state, or local statute?
3. Have you ever been denied the privilege of taking an examination given by any state licensing board, or been denied a certificate/license issued to you, or been the subject of any other disciplinary action?
4. Has any state licensing board revoked or suspended a certificate/license issued to you, or taken other disciplinary action?
5. Have you ever had your hospital privileges limited, denied, or revoked?
6. Have you ever been denied a DEA registration number or been issued a restricted DEA registration?
7. Have you ever had any malpractice suits filed against you? How many?
8. Have you ever been denied membership in any medical association or specialty society?
9. Have you ever resigned from a hospital staff after a complaint or a peer review action has been initiated against you?
10. Have you ever voluntarily surrendered a medical license, a controlled substance registration, or a DEA registration?
11. To your knowledge, are you the subject of a current investigation by any licensing board?

Table 2. Relative Risk by Self-Declared Specialty Compared to the General Physician Population

Specialty	Georgia Program[2] n=1000	California Program[3] n=100	Oregon Program[4] n=63	Women (Bissell)[9] n=100
Anesthesiology	3.1	3.5	1.2	0.98
Family/General	2.1	1.6	2.8	1.5
Emergency Medicine	2.0	3.0	1.25	2.33
Psychiatry	0.97	1.11	1.51	2.33

Relative risks >2.0 as compared to the general physician population, are likely to be significant.

protection of employment seen as a result of addiction. In either event, this pattern of hard work and occupational success makes identification and confrontation difficult.

Prescribing Practices

Recent articles on impaired prescribers from states with triplicate prescription laws are providing intriguing data on the impaired professional. One such article by Kofoed et al[12] reviewed 300 complaints of inappropriate prescribing in Oregon for the period 1981-1986. Nearly all such complaints involved controlled substances, and the majority were detected in the course of routine audit by the Board of Pharmacy. Of 130 key complaints against physicians for excessive or inappropriate writing for controlled substances, seventy-five were terminated in the investigative stages, leaving fifty-five to be reviewed by the full Board. Of those fifty-five cases, thirty-four resulted in voluntary surrender by the physician of the right to prescribe controlled substances, sixteen resulted in other sanctions, and five were closed without comment. Most of the cases (53 of 130) involved general or family practitioners, and thirty-five of the fifty-five cases reviewed by the Board involved repeated offenses. Kofoed et al use the term "pseudo-benevolent prescriber" to define the physician at risk for excessive prescribing, the description of which is very similar to Talbott's "M-Deity" concept. This pattern is characterized by:

1. A strong and deeply felt need to help.
2. Professional grandiosity and omnipotent feelings such as "Only I am able to help this patient."
3. An orientation toward immediate solutions such as symptomatic relief that overshadow long-term consequences.
4. A stated inability to handle his or her feelings if treatment that could provide immediate relief is withheld.

Medical Students at Risk

Another discussion of relative risk for professionals comes from studies of substance use and abuse among medical, pharmacy, and nursing students. Since the 1970s,[6] studies have reviewed the patterns of drug and alcohol use among students in the health sciences and all have found substantial use of "soft" drugs (e.g., benzodiazepines, methaqualone, cannabis) among the student population. It is interesting to note that there is a positive association between high academic achievement and alcohol and drug abuse in both medical student and physician-in-training populations which holds up in prospective studies.[13]

As the drug-using high school cohort of the 1970s begins to mature into the college and medical school cohorts of the 1980s and 1990s, papers are appearing that reflect the increasing detection of abuse of illicit drugs (e.g., cocaine and opiates) among physicians. Personal communications with treatment centers have verified that these reports do reflect a new type of physician addict, one who has brought a pre-existing personal history of drug abuse and addiction into the profession.

Behavioral Risk Factors

The literature cited suggests that the physicians at increased risk are those with a prior history of illicit drug use, those in high-risk specialties (e.g., anesthesiology, emergency room medicine, general or family practice), those who have a pattern of over-prescribing, and those who manifest a pattern of academic success or habitual overwork accompanied by a combination of professional grandiosity and excessive guilt.

To Which Drugs are They Vulnerable?

The same sources which discuss physicians at risk also discuss the drugs to which impaired physicians have been addicted. Such lists are subject to bias due to a tendency to overreport drugs which are tightly controlled under the law (Schedules I & II), and to underreport drugs which are subject to lesser scrutiny (Schedules III - V).[14] Drug diversion is greatly affected by changes in availability brought about by federal, state, and local regulatory actions. Table 3 summarizes data from a variety of sources on the relative abuse of drugs by physicians. These data include reports of drug use by medical students, surveys of practicing physicians,[6] and a ten-year survey of anesthesiology training programs,[15] as well as the sources cited previously.

The reports highlighted in Table 3 describe a cannabis-cocaine pattern of abuse in medical students, benzodiazepine abuse in the practicing physician, a mixed opiate-tranquilizer pattern in the Georgia physician treatment program, a mixed oral opiate-tranquilizer pattern amoung over-prescribers, and an almost pure opiate addict profile in the anesthesiologist survey. The most commonly abused drug is proportional to the prevalence of that drug's use in each treatment setting, and it may be that the patterns of abuse among healthcare professionals are related to the patterns of access to and the familiarity with the drugs used. Of particular concern is the fact that most of the drug use among young physicians is for self-treatment. Use of drugs with a high abuse liability in order to function normally is hazardous, since it is a pattern of use which is less likely to fade over time than is simple recreational use.[13]

How Effective is Prevention, Intervention, and Treatment?

Increased attention to the impaired professional over the last few decades has limited physicians' easy

access to controlled substances through the restriction of mail-orders and samples supplied by "detail" men, as well as early detection of diversion and self-prescription. The areas where these controls are not effective include the dispensing practice of the general or family physician, the operating and emergency rooms, and the endoscopy suite. In these situations, drugs are subject to diversion at the point of administration (usually nurses), or while a physician is in sole custody of a supply of a drug (e.g., anesthesiologists). It is worth noting that the most common drug involved in addiction among nurses is meperidine, the most common postoperative parenteral analgesic; among anesthesiologists, it is either meperidine or fentanyl, the most common operative and postoperative analgesics. Methods of diversion of parenterals usually consist of administration of smaller doses to patients than are logged out, fraudulent log entries, or replacement of active drugs in multiple dose vials with saline or water. Methods of diversion (for personal use) of oral dosage forms usually consist of fraudulent dispensing (i.e., dispensing of less pills than were prescribed), diversion of returned medications, or various kinds of fraudulent prescribing (e.g., deceased patient, duplicate prescription, or imaginary patient).

The most extensive literature on drug abuse detection among and intervention with physicians has emerged from studies of anesthesiologists. As a specialty, anesthesiology has been willing to address drug abuse and addiction as an occupational hazard. Drug abuse in anesthesiology training programs afflicts 2 percent of the physicians in training,[15] involves both opioid and non-opioid abuse, and results in a significant fatality rate.[16,17] Systems to control access to narcotics by anesthesiologists have included: satellite pharmacies in the operating room, narcotics boxes locked to the anesthesia machines, periodic screening for adulteration or diversion of multi-dose vials by refractometry, tamper-resistant "case-packs" rather than individaul vials, and periodic audit.[18] Studies of the process of detection, intervention, and treatment have shown that physicians are willing to use their professional hierarchy to confront alcoholism and addiction,[19] and that impaired professionals programs are effective in engaging impaired professionals in a treatment contract that is usually successful,[2-4] although special care is advocated in the case of the opioid-dependent anesthesiologist.[20]

What More Might Be Done?

The data would suggest that the current measures to control exposure to addictive substances offer reasonable protection for all but those who directly handle and administer the drugs, either by injection (nurses, anesthesiologists) or in oral dosage forms (general and family practitioners who dispense). These groups still seem at greater risk compared to the rest of the medical community, and it is not clear that the laws protecting the general public are adequate to reduce this risk.

It is unlikely that the answer to physician abuse of and dependence on prescription drugs lies in more education on alcoholism and illicit drug addiction. Education is effective only to the extent that it is able to shape attitudes, and it is reinforced by the attitudes and behavior of a peer group. Until most physicians consider all drugs that alter mood, behavior, and the perception of pain as potentially addicting, the problem will remain with us. Medical schools, residency programs, hospitals, group practices, HMOs, and professional societies must establish and maintain a zero-tolerance attitude toward self-prescription and self-administration of psychoactive drugs. Physicians must not write prescriptions for themselves, dispense such medications to themselves, or make personal use of samples provided by pharmaceutical companies. Physicians in practice should establish a professional courtesy relationship with other physicians such that it is *never necessary for them to write even the most in-*

Table 3. Specific Drugs or Drug Classes as a Percentage of All Physician Drug Use

Drug Name or Drug Class	Medical Students Recreational[6] (n=381)	Physician Survey Recreational[6] (n=107)	Physicians Survey Self-RX[6] (n=135)	Pilferage Episodes[14] (n=352)	Excessive RX[12] (n=130)	Georgia Impaired Physicians[2] (n=1000)	Women Physicians[9] (n=100)	Anesthesiology Survey[15] (n=334)
Cannabis	46	66	0	*	*	8	8	*
Cocaine	14	19	4	4	*	8	6	*
Amphetamine	10	5	11	1	4	11	18	
Meperidine	*	*	*	21	9	26	*	31
Morphine	*	*	*	6	*	*	*	15
Fentanyl	*	*	*	1	*	6	*	26
Oxycodone	*	*	*	3	22	8	*	*
Codeine & Codeine Combinations	*	*	*	5	22	7	*	*
Unspecified Opiate	5	2	36	10	26	7	19	13
Diazepam	*	*	*	25	11	16	17	14
Unspecified Tranquilizer or Sedative	14	7	49	22	4	*	6	*
Other Drugs	11						6	

* = data by specific drug or drug class not reported.
Numbers may not add to 100% due to rounding.

nocuous prescription for themselves. Insofar as it is possible for the medical community to do so, it should impress upon its members that it is both unethical and dangerous for a physician to self-administer any controlled substance.

It is possible to establish and support a system of professional values which makes it risky and wrong to divert medications for personal use without a prescription, and thus to reduce the chances of impulsive or imprudent use. Little has been written in the professional literature regarding methods of protecting the dispensing practice, although the use of prescription-sized tamper-resistant packaging, improved record-keeping, and local or regional agreements on dispensing practices have all been tried.

The basic principle is that drugs with abuse potential represent a threat of addiction to all individuals exposed to them. If addiction is to be prevented, it must be made both difficult and improper for physicians to treat themselves with psychoactive drugs. While not every physician is called upon to practice the relapse-prevention disciplines necessary for the recovering addict, the same principles should apply to all physicians. If our professional culture can be altered so that fewer of us self-medicate with addicting drugs, the need may be reduced for early identification, treatment, and rehabilitation as described elsewhere in this issue.

References

1. Robertson JJ (ed.). The impaired physician. Chicago: American Medical Association, 1978.
2. Talbott GD, Gallegos KV, Wilson PO, Porter TL. The Medical Association of Georgia's impaired physicians program. JAMA 1987;257:2927-30.
3. Gualtieri AC, Cosentino JP, Becker JS. The California experience with a diversion program for impaired physicians. JAMA 1983;249:226-9.
4. Shore JH. The Oregon experience with impaired physicians on probation. JAMA 1987;257:2931-4.
5. Brewster JM. Prevalence of alcohol and other drug problems among physicians. JAMA 1986;255:1913-20.
6. McAuliffe WE, Rohman M, Fishman P, Friedman R, Welchsler H, Soboroff SH, Toth D. Psychoactive drug use by young and future physicians. J Health Soc Behav 1985;25:34-54.
7. Garb S. Drug addiction in physicians. Anesth analg 1969;48:129-133.
8. Gallegos KV. The pilot impaired physicians epidemiologic surveillance system (PIPESS). Md Med J 1987;36:264-6.
9. Bissell LC, Skorina JK. One hundred alcoholic women in medicine. JAMA 1987;257:2939-44.
10. Vogtsberger KN. Treatment outcomes of substance-abusing physicians. Am J Drug Alcohol Abuse 1984;10:23-37.
11. Jones RE. A study of 100 physicians psychiatric inpatients. Am J Psychiatry 1977;134:1119-23.
12. Kofoed L, Bloom JD, Williams MH, Rhyne C, Resnick M. Physicians investigated for inappropriate prescribing by the Oregon Board of Medical Examiners. West J Med 1989;150:597-601.
13. Clark DC, Eckenfels EJ, Daugherty SR, Fawcett J. Alcohol-use patterns through medical school. JAMA 1987;257:2921-26.
14. Hoover RC, McCormick WC, Harrision WL. Pilferage of controlled substances in hospitals. Am J Hosp Pharm 1981;38:1007-10.
15. Ward CF, Ward GC, Saidman LJ. Drug abuse in anesthesia training programs. JAMA 1983;250:922-25.
16. Spencer JD, Rassch FO, Trefny FA. Halothane abuse in hospital personnel. JAMA 1976;235:1034-5.
17. Adler GR, Potts FE, Kirby RR, Lopalo S, Hilyard GR. Narcotics control in anesthesia training. JAMA 1985;257:3133-6.
18. Moleski RJ, Easley S, Barash PG, Primer G, Shier NQ, Schrier RI. Control and accountability of controlled substance administration in the operating room. Anesth Analg 1985;64:989-95.
19. Reuben DB, Noble S. House officer responses to impaired physicians. JAMA 1990;263:958-60.
20. Menk EJ, Baumgarten RK, Kingsley CP, Culling RD, Middaugh R. Success of reentry into anesthesiology training programs by residents with a history of substance abuse. JAMA 1990;263:3060-62.

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Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:
• Discontinue Ceclor in the event of allergic reactions to it.
• Prolonged use may result in overgrowth of non-susceptible organisms.
• Positive direct Coombs' tests have been reported during treatment with cephalosporins.
• Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
• Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
• Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:
• Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of **serum-sickness-like** reactions have been reported with the use of Ceclor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, **serum-sickness-like** reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy; occasionally these reactions have resulted in hospitalization, usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symptoms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.
• Stevens-Johnson syndrome, toxic epidermal necrolysis, and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.
• Gastrointestinal (mostly diarrhea): 2.5%
• Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
• As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
• Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.
• Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.

Abnormalities in laboratory results of uncertain etiology.
• Slight elevations in hepatic enzymes.
• Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
• Rare reports of increased prothrombin time with or without clinical bleeding in patients receiving Ceclor and Coumadin concomitantly.
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The Physician Rehabilitation Program of Maryland

Stanley R. Platman MD and Michael C. Llufrio CAC

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The Physician Rehabilitation Program, under the auspices of Med Chi's Committee on Physician Rehabilitation, was established to assist physicians who are experiencing problems because of substance abuse, physical disability, or psychiatric illness.

Physician impairment is the inability to practice medicine with reasonable skill and safety because of physical or mental illness. Reliable analyses attribute three-fourths or more of physician impairment cases to substance abuse and addiction, either primary, or secondary to other underlying psychopathology or physical illness.[1] In 1956, the American Medical Association (AMA) passed a landmark policy stating that alcoholism was a medical disease.[2] In 1987, the AMA House of Delegates resolved that the American Medical Association endorse the proposition that drug dependencies, including alcoholism, are diseases and that their treatment is a legitimate part of medical practice.

In 1973, the AMA Council on Mental Health published a landmark study, "The Sick Physician."[3] The study suggested that as many as 3.2 percent of physicians suffer from alcoholism, 2 percent from drug abuse, and 1.3 percent from other mental disorders. Since this study, it has become evident that these findings were, unfortunately, a gross underestimation. Newer estimates of physicians impaired with mental illness and substance abuse range as high as 12 to 16 percent.[4]

As of 1984, every state medical society in the country had formed a committee for the purpose of:

- ensuring safe and competent patient care; and
- demonstrating concern for the welfare of the sick physician and his/her family.

These dual responsibilities are at times complementary and at other times conflicting. "The presence of an impairment doesn't mean that the physician is dangerous to patients. Quite often impairment precedes any obvious evidence of deterioration of a physician's practice. Left untreated, however, the inevitable consequence of physician impairment is bad patient care and dangerous patient care."[5]

The Committee on Physician Rehabilitation in Maryland was formed in 1978 as a committee of the Medical and Chirurgical Faculty of Maryland (Med Chi), the state medical society. A

full-time program director was hired in 1985 to ensure continuity and to provide much-needed manpower. Funding was obtained from a ten dollar assessment on the medical society membership fee and more recently, from a yearly donation by the Medical Mutual Liability Insurance Society of Maryland (Med Mutual). From the beginning, the services of the program were available to all licensed and non-licensed physicians and medical students in Maryland, but funding was very limited as was active outreach and meaningful preventive education. However, in its most recent session, the State Legislature included, at the request of the Med Chi Executive Committee, an amendment to SB 138 (the Board of Physician Quality Assurance bill) assessing all licensed Maryland physicians $50.00 to support the Physician Rehabilitation Program. This bill passed and was signed by Governor Schaefer, and will provide a significant infusion of funds. These resources mark a new era in the activities of the Physician Rehabilitation Program under the auspices of Med Chi's Committee on Physician Rehabilitation.

The Present Program

The Physician Rehabilitation Program in Maryland has grown gradually over the years, more rapidly since the hiring of a full-time Program Director (Table 1).

Although the growth is evident and all individuals contacting or being brought to the attention of the Program are investigated, the numbers do not reflect the expected incidence and prevalence of impairment to be found among physicians in Maryland. This is also true in all other states. There are many reasons for this finding. Many physicians are in treatment and never come to the attention of the Program unless they fail to comply with the care provided. A small number are reported directly to the Board of Physician Quality Assurance (BPQA) and only a few are referred to the Program from this source. However, the majority of impaired physicians fall into two groups and may never be identified. They are:

1. Impaired physicians who are *not recognized* and continue to practice at an impaired level.
2. Impaired physicians who *are recognized* by their colleagues, family, or staff but are *never reported* to the Physician Rehabilitation Program or the Board of Physician Quality Assurance.

The presence of the first group reflects the fact that many physicians are not aware of the significant signs that should make them suspect they are dealing with an impaired physician. Whereas no single sign is a warning, a pattern or cluster of signs should make us all "think impairment." It is more likely that a physician is apt to be recognized if he or she practices in a hospital. In the hospital setting, peer observation is increased and behavior is observed by many individuals. Suspicion may be raised by quality assurance activities, incident reports, patient or staff complaints, and risk management concerns. Certainly the following should be of concern:

- Changes in behavior
- Failures in responsibility
- Small errors
- Missing drugs
- Alcohol on breath
- Missed appointments
- Phone calls not returned
- Absenteeism, especially on Mondays
- Malpractice cases
- Friction with staff and peers

The continued existence of the second group of physicians creates harm by allowing the disease to progress unchecked. This often comes about due to a false belief that greater harm will occur by intervention and that, in any case, the decision should be that of the impaired physician. Physicians, like other people, often believe that the problem is a moral issue and that the impaired person will mend his or her ways. Unfortunately, all too often, impairment is a situation in which the physician is no longer capable of making wise choices. Denial is the normal response and many physicians respond by stating, "It's okay, I'm a doctor."

Table 1. Number of Physicians Reported by Year and Primary Impairment.

Primary Impairment	1980	1986	1989
Alcoholism	15	25	23
Drug Addiction	11	29	34
Psychiatric Illness	5	12	18
Physical Disability	0	4	1
Total	31	70	76

How Does the Program Work?

Confidentiality. Both federal and Maryland law protect the confidentiality of physicians referred to the Physician Rehabilitation Program.[6] However, there are limitations to this protection. Basically the Program is always faced with two major issues: confidentiality and dangerousness. In order for physicians to be protected by the right of confidentiality, it is essential that they be willing to enter into treatment and that they comply with the contract that is developed by the Program. If a physician is not compliant or is considered dangerous to self or others, confidentiality will be breached and the name of the physician will be forwarded to the Board of Physician Quality Assurance. This action follows accepted case law as outlined in the *Tarasoff v Regents of the University of California.*[7] In addition, Program staff may advise the person(s) who initially called, to report a physician directly to the BPQA if it is the staff's opinion on first contact that this physician is not interested in treatment and is an obvious, immediate danger to his or her patients.

By 1980, at least thirty-nine states had enacted some form of "sick doctor" statute. The requirements for reporting an impaired physician vary considerably from state to state. Some of these statutes allow report-

ing and others mandate it; immunity for good faith reporting is usually included in the statute. Reporting is generally made to the state's medical licensing board. New Jersey law mandates that hospitals and physicians report suspected incidents of gross incompetence or impairment to a nine-member Medical Practioners Review Board that operates under the state's Board of Medical Examiners. It should be noted that there is pressure in Maryland to enact similar mechanisms. There is a fear that the Physician Rehabilitation Program is protecting dangerous and incompetent physicians, and that the BPQA should be aware of all physicians under the auspices of the Rehabilitation Program. To date, this trend has been resisted and the Program has carefully examined its practices and contracts to assure that noncompliant and dangerous physicians are not protected inappropriately under the legislated, confidential protection clause.

In summary, the Physician Rehabilitation Program is not disciplinary in character and is confidential in practice. However, no physicians should believe that by entering into its domain, they will be protected from the consequences of being an imminent danger to their patients or to themselves.

Advocacy. The Committee on Physician Rehabilitation, through the Physician Rehabilitation Program, acts as an advocate for the impaired physician. It will loan treatment funds to those physicians whose impairment has depleted them of the financial capacity of obtaining treatment. Over 80 percent of these funds have been paid back, reflecting the excellent clinical outcome for most physicians entering into treatment under the auspices of the Committee. Med Chi was the first medical society to provide loans for impaired physicians in financial trouble.

The Physician Rehabilitation Program will also act as an advocate for a physician who is seeking employment or who is under threat of punishment from the BPQA. The Program will advocate for the restoration of the right to practice medicine in the state. Advocacy in these situations is based on how well the physician has done in the treatment program. Recovery is a long and sometimes painful process, and the ability to function again as a physician is an important motivation in the recovery process.

The Process. There are four phases to the program: investigation, evaluation, treatment, and monitoring. Investigation begins after the report is received. The report may be from the physician, other physicians, patients, family, and staff or it may be received anonymously. The greatest number of reports come from other physicians concerned about a specific physician. On receipt of the report, discrete inquiries are made to verify the information from several different sources. At times, problems arise at this initial level. The Physician Rehabilitation Program may get a report from a spouse of an impaired physician. However, he or she may state that Program staff cannot talk to the physician because the spouse fears the impaired physician's response.

If it appears that there is substance to the initial report, the physician is contacted and informed of the nature of the report and requested to come and meet some members of the Committee on Physician Rehabilitation. This evaluation is conducted to determine if there is a problem that needs attention. It is often immediately evident that the individual is impaired and he or she is anxious to be helped and to enter into treatment. In such circumstances, the physician will be referred to treatment (or may have already voluntarily entered into treatment), be requested to sign a customized contract, and a monitor (usually a Committee member) will be assigned to the case. The contract is usually for a five-year period, and penalties for relapse (e.g., report to the Board of Physician Quality Assurance) are built into it if the basic problem is one of substance abuse.

If the problem is not immediately evident or if the physician denies a problem, the physician is referred for consultation to an appropriate specialist. In these situations, the physician is requested to sign releases so that the Committee may obtain further information about him or her. Such releases are usually sent to the Chiefs of Service, the treating physicians or nonphysicians, and other significant informants. If substance abuse is suspected, the physician will be asked to provide a sample of urine during the initial evaluation. The suspected physician may attend this initial evaluation alone or bring family, significant others, or a lawyer. The philosophy behind the initial evaluation is one of helpfulness and honest communication. It is not intended to be an inquisition although it may appear that way to the physician since many individuals associated with the physician may be in attendance. If no problem is evident from the evaluation, the case is either dropped from active status or held open for continued monitoring.

On acceptance into the treatment phase, the impaired physician has to sign a contract with the Physician Rehabilitation Program. This contract outlines treatment expectations, urine testing if substance abuse is a problem, the role of the monitor, and the conditions that might lead to a report to the BPQA. If a relapse occurs, the first one is usually handled as a clinical issue and appropriate changes are made in the treatment plan. At this time it is common for the impaired physician to be referred to an inpatient program. A second relapse with alcohol or a drug may result in a communication to the BPQA. Behavior that is dangerous to the physician's patients is automatically forwarded to the BPQA. The Physician Rehabilitation Program has also produced a pamphlet, "To Disclose or Not to Disclose ..." This pamphlet provides guidelines to impaired physicians regarding difficult questions such as *who* to tell about their situation, *what* to tell their patients and colleagues, or how to explain a multi-week absence from their practice for treatment purposes.

The standard length of the treatment phase is now two years, but may be extended indefinitely if neces-

sary. Monitoring by a Committee member may be extended for a further three years and, therefore, the standard period of observation by the Committee is five years. Initial treatment may take place in an inpatient setting although increasingly this is not considered necessary. Treatment for problems of substance abuse also include random, collected urines, and regular attendance at Alcoholics Anonymous (AA) or Narcotics Anonymous (NA) meetings. The Monitor is an essential variable in the recovery of the impaired physician. The Monitor serves as both an observer and a helping hand. If a problem should arise, it is the responsibility of the Monitor to communicate this information to the Program Director or the Chairperson of the Committee. Table 2 shows the May 1990 status of the active case-load being followed by the Committee through the Physician Rehabilitation Program.

Special and New Issues

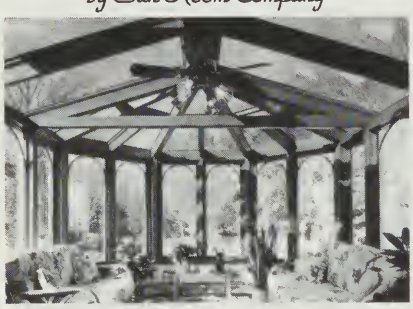
Hospitals taking local responsibility. Hospitals are increasingly concerned about the presence of impaired physicians. A number of them are establishing or have established committees to address this issue. In many ways they are replicas of the Med Chi Committee on Physician Rehabilitation and use it as a model, as well as a subsequent source of referral. To date, this process has been encouraged and it is the Committee's hope that with the new funding initiated on July 1, 1990, the Committee will be able to assist hospitals in developing physician rehabilitation programs.

Johns Hopkins Hospital will be the first in the nation to require its medical staff to undergo random alcohol and drug screening. (See Platman, S.R. p. 1015)

Table 2. Active Cases

Program Phase	Number	Percent
Investigation	8	9.3
Evaluation	8	9.3
Treatment	30	34.9
Monitoring	40	46.5
Total	86	100.0

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Sex-related impairments. In recent months, there have been a small number of referrals to the Physician Rehabilitation Program for sex-related impairments. Individuals referred have generally already received criminal sentences for sexual relationships with patients; a variety of paraphilias with patients or non-patients; or incestuous relations with members of their families. They are referred for monitoring or for advocacy to regain their licenses to practice.

At this time, the Physician Rehabilitation Program continues to study the practice and standards required to monitor these physicians. It is evident that a number of these physicians are being treated with Depo-Provera and certainly some are no more difficult to monitor than physicians with a mental disorder. In contrast, others cannot be adequately monitored and this raises major concerns about supporting their return to practice even within a site that assures no contact with a vulnerable population.

Summary

The Physician Rehabilitation Program of Maryland has been developed by Med Chi's Committee on Physician Rehabilitation over the last twelve years. Its primary purpose is to assist physicians who are experiencing problems because of substance abuse, physical disability, or psychiatric illness. Rapid changes in the field have challenged the Committee in recent years. New funding which started in July of 1990 will assist Med Chi in meeting these new challenges.

Assistance for the impaired physician may be obtained by calling the Physician Rehabilitation Program at 301-539-0872, or in Maryland 1-800-492-1056. Or, leave a message on the 24 hour Helpline, 1-301-727-0120.

References

1. Report of the inspector general on medical malpractice and impairment, Department of Health & Human Services (DHHS), 1986.
2. Block MA. Medical treatment of alcoholism. JAMA 1956:1610-1619.
3. AMA Council on Mental Health. The sick physician: Impairment by psychiatric disorder including alcoholism and drug dependencies. JAMA 1973;233:684-867.
4. Talbott GD and Benson EB. Impaired physicians: The dilemma of identification. Postgrad Med 1980;68:56.
5. Bader BS and Veatch R. The impaired physician: Patient protection vs concern for a sick colleague. The Quality Letter for Healthcare Leaders 1990;2(2):6.
6. MD H.O. Code Ann. 14-602, 1986.
7. *Tarasoff v Regents of the University of California*, 118, Cal. Rptr. 129, 529 P.2d 553, 1974; on reh'g, 17 Cal. 3d 425, 551, P.2d 334, 131 Cal. Rptr, 14, 1976. ■

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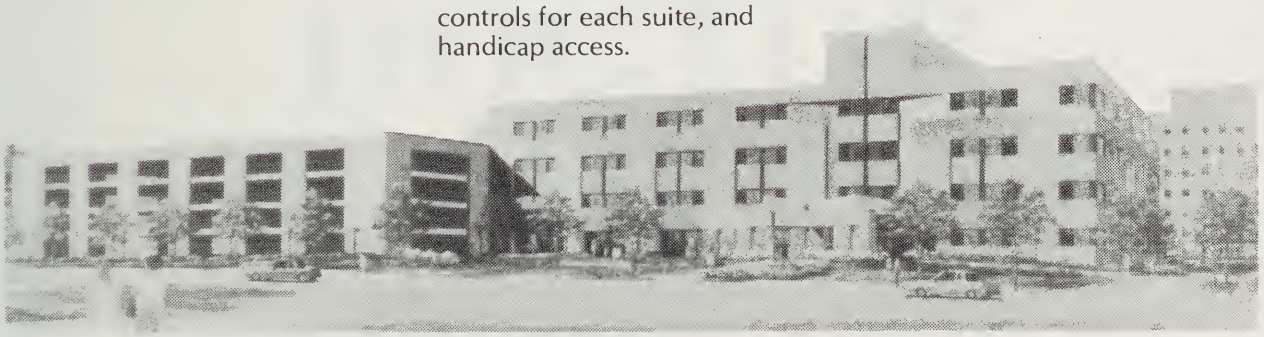
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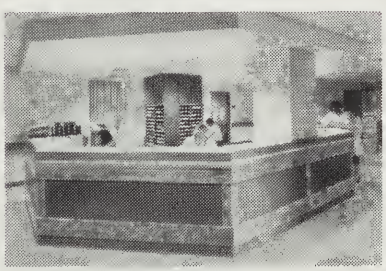


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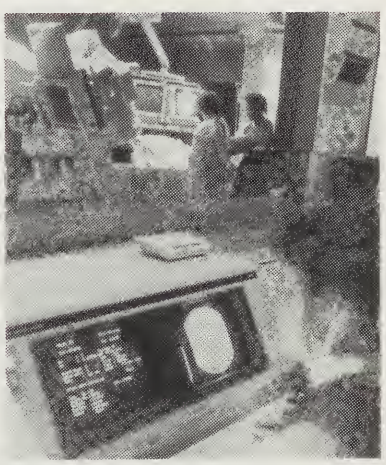
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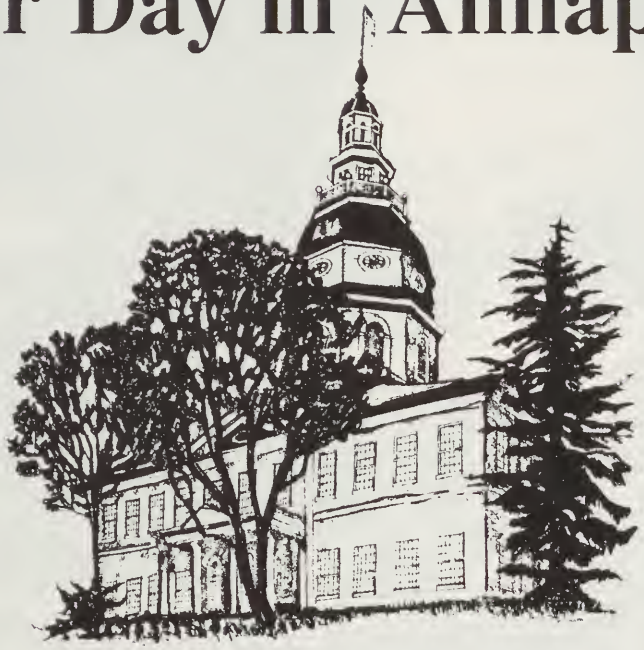
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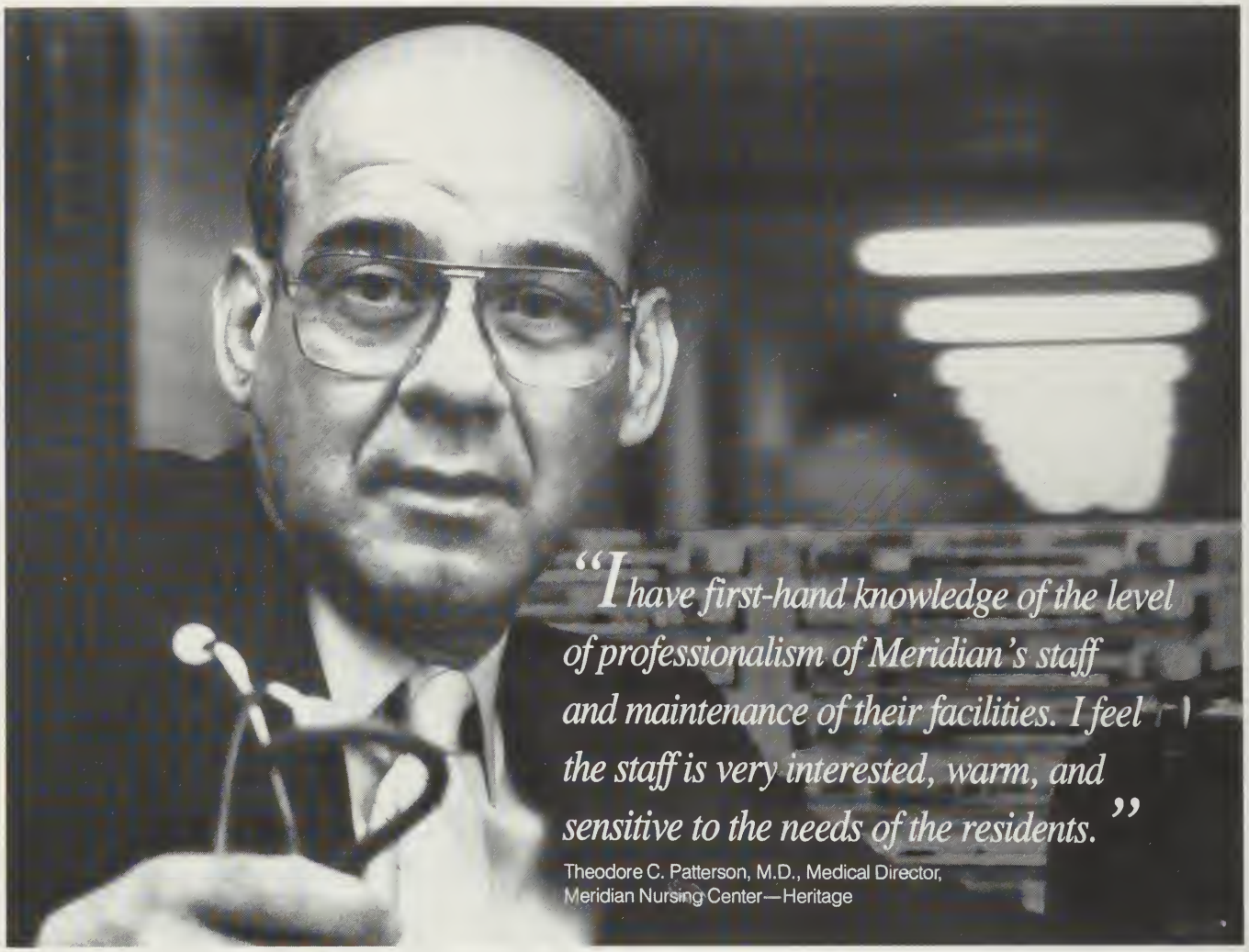
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Legal and Ethical Concerns of Your Medical Practice

This monthly digest will summarize the laws of the State of Maryland, as well as the guidelines, procedures, codes of cooperation, and policy statements of the Medical and Chirurgical Faculty. These laws and policies are being published to reflect recent areas of concern to physicians throughout the state. The Principles of Medical Ethics of the American Medical Association have been adopted as the ethical standards of the Medical and Chirurgical Faculty, and they govern the conduct of members in their relations to the public and to each other (Faculty Bylaws, Article XIII, Section 1). For more information, please refer to the Compendium of Laws, Regulations, Opinions and Policies Governing the Practice of Medicine in Maryland.

■ ■ ■

Dispensing Medications

I have received a number of calls recently regarding the ability of physicians to dispense medications. Therefore, I have delineated below the applicable legal sections pertaining to this issue.

Health Occupations Article Sec. 12-102 provides:

(a) *Definitions.*
  (1) In this section the following terms have the meanings indicated.
  (2) "In the public interest" means the dispensing of drugs by a licensed dentist, physician, or podiatrist to a patient when a pharmacy is not conveniently available to the patient.
  (3) "Personally preparing and dispensing" means that the licensed dentist, physician, or podiatrist:
    (i) is physically present on the premises where the prescription is filled; and
    (ii) performs a final check of the prescription before it is provided to the patient.

(b) *In general.* This title does not limit the right of an individual to practice a health occupation that the individual is authorized to practice under this article.

(c) *Preparing of prescriptions by a licensed veterinarian, dentist, physician, or podiatrist.* This title does not prohibit:
  (1) a licensed veterinarian from personally preparing and dispensing the veterinarian's prescriptions;
  (2) a licensed dentist, physician, or podiatrist from personally preparing and dispensing the dentist's, physician's, or podiatrist's prescriptions when:
    (i) the dentist, physician, or podiatrist:
      1. has applied to the board of licensure in this State which licensed the dentist, physician, or podiatrist;
      2. has demonstrated to the satisfaction of that board that the dispensing of prescription drugs by the dentist, physician, or podiatrist is in the public interest; and
      3. has received a written permit from that board to dispense prescription drugs, except that a written permit is not required in order to dispense starter dosages or samples without charge;
    (ii) the person for whom the drugs are prescribed is a patient of the prescribing dentist, physician, or podiatrist;
    (iii) the dentist, physician, or podiatrist does not have a substantial financial interest in a pharmacy; and
    (iv) the dentist, physician, or podiatrist:
      1. complies with the labeling requirements of Section 12-510 of this title;
      2. records the dispensing of the prescription drug on the patient's chart;
      3. allows the Division of Drug Control to enter and inspect the dentist's, physician's, or podiatrist's office at all reasonable hours;
      4. except for starter dosages or samples without charge, provides the patient with a written prescription, maintains prescription files in accordance with Section 12-505 of this title, and maintains a separate file for Schedule II prescriptions;
      5. does not direct patients to a single pharmacy in accordance with Section 12-403 (a) (7) of this title; and
      6. does not receive remuneration for referring patients to a pharmacy; or
  (3) a hospital-based clinic from dispensing prescriptions to its patients.

(d) *Dispensing drug samples.* This title does not prohibit:
  (1) a licensed veterinarian from personally dispensing a drug sample to a patient of the veterinarian; or
  (2) a licensed dentist, licensed physician, or licensed podiatrist from personally dispensing a drug sample to a patient of the licensed dentist, licensed physician, or licensed podiatrist if:
    (i) the sample complies with the labeling requirements of Section 12-510 of this title;
    (ii) no charge is made for the sample; and
    (iii) the authorized prescriber enters an appropriate record in the patient's chart.

(e) *Administering prescription drugs.*
  (1) This title does not prohibit a dentist, physician, or podiatrist from administering a prescription drug in the course of treating a patient.

(2) For the purposes of paragraph (1) of this subsection, "administering" means the direct introduction of a single dosage of a drug at a given time, whether by injection or other means, and whether in liquid, tablet, capsule, or other form.

(f) *Dispensing starter dosage of prescription drugs.*
(1) This title does not prohibit a dentist, physician, or podiatrist from personally dispensing a starter dosage of a prescription drug to a patient of the dentist, physician, or podiatrist, provided that:
(i) the starter dosage complies with the labeling requirements of Section 12-510 of this title;
(ii) no charge is made for the starter dosage; and
(iii) the dentist, physician, or podiatrist enters an appropriate record on the patient's chart.
(2) For the purposes of paragraph (1) of this subsection, "starter dosage" means an amount of drug sufficient to begin therapy:
(i) of short duration of 72 hours or less; or
(ii) prior to obtaining a larger quantity of the drug to complete the therapy.

(g) *Dispensing drugs at certain medical facilities or clinics.* This title does not prohibit a dentist, physician, or podiatrist from dispensing a prescription drug in the course of treating a patient:
(1) at a medical facility or clinic that specializes in the treatment of medical cases reimbursable through workmen's compensation insurance;
(2) at a medical facility or clinic that is operated on a nonprofit basis;
(3) at a health center that operates on a campus of an institution of higher education; or
(4) at a public health facility, a medical facility under contract with a state or local health department, or a facility funded with public funds.

(h) *Nonprescription sales by general merchants.* This title does not limit the right of a general merchant to sell:
(1) any nonprescription drug, medicine, or device;
(2) any commonly used household or domestic remedy; or
(3) any farm remedy or ingredient for a spraying solution, in bulk or otherwise.

(i) *Violations; penalty.* A dentist, physician, or podiatrist who fails to comply with the provisions of this section governing the dispensing of prescription drugs shall:
(1) have the dispensing permit revoked; and
(2) be subject to disciplinary actions by the appropriate licensing board.

Additionally, Health Occupations Article Sec. 12-510 (e) describes the labeling requirements for medications dispensed by authorized prescribers.

(1) Except as provided in this subsection, if an authorized prescriber dispenses medication, the prescriber shall label each container of the medication.
(2) In addition to any other information required by law, the authorized prescriber shall include on the label:
(i) the name and strength of the medication;
(ii) the date the prescription is dispensed;
(iii) the month and year when the medication expires, if known; and
(iv) any appropriate special handling instruction regarding proper storage of the medication.
(3) The labeling requirements of this subsection do not apply if the authorized prescriber dispenses the medication:
(i) to an inpatient in a hospital or related institution;
(ii) in an emergency situation; or
(iii) as a sample medication dispensed in the regular course of the authorized prescriber's practice.

Perhaps of greatest importance to physicians is Health Occupations Article Sec. 14-504 which provides:

(a) *In general.* Subject to the hearing provisions of Section 14-505 of this subtitle, the Board, on the affirmative vote of a majority of its full authorized membership, may reprimand any licensee, place any licensee on probation, or suspend or revoke a license if the licensee:

(29) fails to comply with the provisions of Section 12-102 of this article.

Physicians should realize that the regulations drafted in accordance with the above statutes have not been formally proposed in the *Maryland Register.* If you are interested in obtaining further information about this subject, please contact me at the Faculty office at (301) 539-0872, ext. 312, or 1-800-492-1056.

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Chemotherapy For Advanced Nonsmall Cell Lung Cancer

The role of chemotherapy in nonsmall cell lung cancer (NSCLC) has been questioned by many investigators and lacks universal acceptance. Few of the large number of agents tested in phase II studies of NSCLC have shown significant single agent activity resulting in major responses in more than 15 percent of previously untreated patients. Nevertheless, many multidrug combinations developed to treat NSCLC have shown diverse results (Table 1). These results account, in part, for the poor acceptance of chemotherapy in the treatment of NSCLC in the past.

Recent studies, however, demonstrate that current chemotherapy regimens can improve survival in patients with advanced NSCLC. In a Canadian multicenter randomized trial, two chemotherapy regimens and a supportive care regimen were compared in 251 patients with advanced NSCLC.[1] Of the 233 eligible patients, fifty were treated with supportive care alone; ninety-one were treated with a vindesine/cisplatin (VP); and ninety-two received a combination of cyclophosphamide, doxorubicin, and cisplatin (CAP). Median survival was 32.6 weeks for VP, 24.7 weeks for CAP, and 17 weeks for best supportive care, indicating a statistically significant advantage with combination chemotherapy. Adding the costs of hospitalization and therapy, the authors found that the costs associated with best supportive care were no less than those for chemotherapy. In a randomized study of cisplatin and vindesine versus no chemotherapy, the difference in median survival not only favored chemotherapy (43 vs 26 weeks), but also reached statistical significance.[2] These studies suggest that appropriate combination chemotherapy does have a potential role in the management of advanced NSCLC.

Although cisplatin-based combination chemotherapy can produce a useful response and a significant prolongation of survival in patients with advanced NSCLC, more effective chemotherapy is clearly needed. Research continues to focus on the search for new therapeutic agents. A new class of compounds, the lipid soluble antifols which are analogous to methotrexate, include trimetrexate, piritrexim, and 10-EdAM (10-ethyl-10-deaza-aminopterin). These compounds are being investigated for their potential efficacy in patients with advanced NSCLC. An encouraging single agent response rate of 32 percent in patients with advanced NSCLC was observed using 10-EdAM in a phase II study. [3] This agent thus appears to be one of the most interesting and efficacious among those tested in NSCLC. Using 10-EdAM in combination with mitomycin-C and vinblastine (EMV) produced significant tumor regression in 59 percent of patients with advanced NSCLC in a pilot study recently completed at Memorial Sloan Kettering Cancer Center. [4] The median survival of all patients was 12.8 months. Treatment with EMV resulted in an improvement in symptoms and weight gain, and maintenance or improvement in performance status. This study also established that chemotherapy is justified in patients with advanced NSCLC. To further define the role of 10-EdAM in the management of NSCLC, a multi-institutional phase III study comparing the combination of mitomycin and vinblastine to the combination of mitomycin-C, vinblastine, and 10-EdAM is in progress; the University of Maryland Cancer Center is one of the participating institutions.

Other new agents that have shown promising results in the management of NSCLC are 5' nor-anhydrovinblastine (navelbine) with a single agent response rate of 33 percent [5] and CPT-11, a new camptothecin derivative, with a 41 percent response rate in chemotherapy-naive patients. [6] Further trials of these agents in combination with other drugs are in the planning stages and may further support the role of chemotherapy in NSCLC, thus offering a rational alternative to surgery and radiotherapy in patients with advanced disease.

With the availability of more effective agents with high response rates in NSCLC, and with results of randomized studies favoring chemotherapy, the controversy as to whether to treat or not to treat seems to have been resolved. Patients can be best served by participating in organized clinical phase II and III investigations, so that optimal therapy can be selected with the goal being improvement in quality of life and increase in overall survival.

Table 1. Selected Combination Chemotherapy Regimens for NSCLC

Regimen	Studies	Patients/Trial	% Response	Median Survival
COMB	4	20-48	5-33	3-10 mos.
CAP	14	19-131	6-48	6.6-20 mos.
CAMP	9	32-84	17-51	8-17 mos.

COMB - cyclophosphamide, vincristine, methotrexate, bleomycin
CAP - cyclophosphamide, adriamycin, cisplatin
CAMP- cyclophosphamide, adriamycin, methotrexate, procarbazine

CHANDRA P. BELANI MD
Assistant Professor of Medicine and Oncology,
University of Maryland Cancer Center, Department of Medicine
University of Maryland Medical Center

References

1. Rapp E, Pater JL, William A et al. Chemotherapy can prolong survival in patients with advanced nonsmall cell lung cancer - Report of a Canadian multicenter randomized trial. J Clin Oncol 1988;6:633-41.
2. Williams CJ, Woods R, Levi J, Page J. Chemotherapy for

nonsmall cell lung cancer: a randomized trial of cisplatin/vindesine v no chemotherapy. Semin Oncol 1988;15:58-61.

3. Shum KY, Kris MG, Gralla RJ et al. Phase II study of 10-ethyl-10-deaza-aminopterin in patients with stage III and IV nonsmall cell lung cancer. J Clin Oncol 1988;6:446-50.

4. Kris MG, Gralla RJ, Potanovich LM, Marks LD, Heelan RT. Assessment of pretreatment symptoms and improvement after EdAM + mitomycin + vinblastine (EMV) in patients with inoperable nonsmall cell lung cancer (NSCLC). Proc Am Soc Clin Oncol 1190;2:229.

5. Depierre A, Lemarie E, Dabouis G, Garnier G et al. Efficacy of navelbine (NVB) in nonsmall cell lung cancer. Semin Oncol 1989;16:33-36.

6. Fukuoka M, Negoro S, Niitani H, Taguchi T. A phase II study of a new camptothecin derivative, CPT-11 in previously untreated nonsmall cell lung cancer. Proc Am Soc Clin Oncol 1990;9:226.

Tumor Conferences are held weekly on Tuesdays between 8 and 9 a.m. in the 9th Floor Conference Room at the University of Maryland Medical System. Physicians are welcome to attend this open meeting and to present cases and pathological slides. Call by noon Monday to be placed on the schedule: Surgical Oncology Program, University of Maryland Medical System, Room N13E02, Baltimore, MD 21201 (301) 328-5224. ■

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MISCELLANEOUS MEETINGS

November 8-9	**How to Get Started In Medical Practice**, sponsored by the Southern Medical Association. Location: Richmond Marriott, Richmond, VA. Info: L. Nail 1-800-423-4992.
November 9	**Arthritis Care for the 1990s - A Practical Approach for the Primary Care Physician**, Arthritis Foundation, Maryland Chapter. 8:45 a.m. - 5:00 p.m., Holiday Inn, BWI, Linthicum, MD. Fee: $40; $30 if not requesting AMA Cat I credits. 6 AMA Cat I credits; 6.5 AAFP prescribed hrs. Info: Karen Krug 301-561-8090.

Shady Grove Adventist Hospital, 9901 Medical Center Drive, Rockville, MD. Info: 301-279-6000.

November 1	**New Techniques for Smoking Cessation**
November 8	**Outpatient Treatment of Alcohol and Substance Abuse**
November 15	**Podiatric Approaches to Common Foot Disorders**
December 6	**Therapeutic Advances in Inflammatory Bowel Disease**
December 13	**Medical Management of Subarachnoid Hemorrhage**
December 20	**AIDS Update**

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All courses at the Turner Auditorium unless otherwise indicated. For information on sponsored Continued Education Activities for 1990-1991, contact the Office of Continuing Education, 720 Rutland Ave., Turner Auditorium, Baltimore, MD 21205 (301-955-5880).

November 1-4

Principles and Practice of MRI, at the Hyatt Regency Baltimore, sponsored by the Department of Radiology, Division of Magnetic Resonance Imaging. Fee: physicians $495; residents and fellows $250. 24 AMA Cat I credits. Info: D. Heydinger 301-955-2959.

November 2-3

Progress in Pediatrics, sponsored by the Children's Medical and Surgical Center. Fee: physicians $125; residents, fellows, and nurse practitioners $75. 11 AMA Cat I credits; 11 PREP credits; other appropriate credit is pending. Info: P. Campbell 301-955-2959.

November 3-4

Hemodynamic Monitoring, Patient Care, and Pulmonary Artery Catheterization sponsored by the Department of Anesthesiology and Critical Care Medicine. Fee: $425. 14 AMA Cat I credits. Info: 301-955-2959.

November 5-7

Advanced Pediatric Life Support Courses. Fee: $495. Credits: 20 Cat I AMA; 20 AAP PREP. Info: 301-955-2959.

February - April 1991

32nd Postgraduate Institute for Pathologists in Clinical Cytopathology for Board Certified (or qualified) pathologists as a subspecialty residency. 152 AMA Cat I credits in two courses, both of which must be taken. Application and preregistration are advised ASAP; preregistration must be completed before March 15, 1991 unless by special arrangement. Info: J. Frost MD or B. Remley, 111 Pathology Building, The Johns Hopkins Hospital, Baltimore, MD 21205 USA (301-955-8594). *The entire course is given in English.*

February-April Home Study Course A, personal reading and microscopic study at own lab in preparation for Course B. Course A materials will be sent to each participant within the U.S. and Canada for home study. Participants *outside* the U.S. and Canada must make arrangements to study Course A before Course B.

April 14 - April 25, 1991

In-residence Course B, lecture series, laboratory, and clinical experience at the Johns Hopkins Medical Institutions, Baltimore.

Continuously Throughout the Year

Visiting Preceptorship in Pediatric Critical Care Medicine Ongoing 5-day preceptorship by appointment. Fee: $600. 40 AMA Cat 1 credits. Info: 301-955-2959.

Ophthalmic Electrophysiology Technician Training Course Ongoing 1-week course by appointment. The Wilmer Eye Institute, Baltimore. Info: C. Kearney 301-955-2959.

The Department of Radiology and Radiological Sciences offers several courses in abdominal and obstetrical ultrasound. Info: P. Williams 301-955-3169.

Visiting Physicians - offered throughout the year for experience in the lab and participation in read-in sessions; by appointment only. Fee: $500. 40 AMA Cat I credits.

Johns Hopkins Medical Grand Rounds - Accredited audiovisual continuing education series of case discussions for clinicians; 30 topics/year in 5 bimonthly programs. Individual and group subscriptions. 40 AMA Cat I credits. Info: 301-955-3988.

Microsurgery Training at The Johns Hopkins Hospital, one-week program offered continuously throughout the year. 40 AMA Cat I credits. Info: P. Williams 301-955-3169.

UNIVERSITY OF MARYLAND SCHOOL OF MEDICINE

CME Courses: For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (301-328-3956) or by calling the phone number listed under a specific program. FAX 301-328-3103.

November 3-4

Scientific Update for the Cardiologist, Stouffer Harborplace Hotel, Baltimore. Fee and credits to be announced.

November 16

Sudden Infant Death Syndrome: Progress, Puzzles, and Possibilities, Columbia Inn, Columbia, MD. Fee: $60. 6 AMA Cat I credits.

November 29

Dean's Conference Number 2: Clinical Medicine for the Community Physician, Eastern Shore Hospital Center, Cambridge, MD. Fee: $35. Credits to be announced.

December 7-8

Culture, Economics, and Cancer: Models for Intervention, Stouffer Harborplace Hotel, Baltimore. Fee and credits to be determined. Info: Sharon Stenhouse 301-328-3956.

January 24, 1991

Dean's Conference Number 3: Health Issues For Men and Women, UMAB Campus, Medical School Teaching Facility, Baltimore. Fee: $35 (part of the $120 for 4 conferences). 6 AMA Cat I credits.

February 21, 1991

Dean's Conference Number 4: Pediatric Infectious Diseases, UMAB Campus, Medical School Teaching Facility, Baltimore. Fee: $35 (part of the $120 for 4 conferences). 6 AMA Cat I credits.

Continuously Throughout the Year

University of Maryland Dean's Conferences - Held monthly, October through April. Designed for the Family/General Practitioner and Internist. Each conference highlights different clinical departments placing emphasis on the practical methods being used and researched at the University of Maryland. Extension programs are being planned to complement the programs held on the University's Baltimore campus.

Visiting Professor Program - A new 1990-1991 directory of speakers and their topics is available for area hospitals and other healthcare organizations. No administrative fee. Info: 301-328-3956.

Visiting Practitioner Preceptorships - Opportunities for physicians to participate in clinical situations in the University of Maryland Medical Systems. Requires approval from clinical department/division heads. Hour-for-hour AMA Cat I credits available. Direct **all** inquiries to CME 301-328-3956.

Departmental Rounds and Conferences - Weekly, hands-on and lecture presentations hosted by the University's clinical departments. Hour-for-hour AMA Cat I credits available. Brochure available.

Advanced Trauma Life Support Provider/Instructor Programs sponsored by the University of Maryland/MIEMSS. Info: M. Nelson 301-328-2919.

November 15-16 Provider
December 6-7 Provider

Physician Placement Services

The Medical and Chirurgical Faculty of Maryland maintains a Placement Service for the convenience of Maryland physicians, hospitals, and communities in search of candidates for positions available in our state. A detailed description of such opportunities should be forwarded to:

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Physicians wishing to locate in Maryland are invited to submit a resume to be kept on file with the *Physician Placement Service*. Candidates are requested to inform the Faculty when they are no longer available for consideration for opportunities in Maryland. ***MMJ*** announcements on the Classified Advertising page for Physician Placement Service are charged at the regular Classified Advertising rate.

AMERICAN MEDICAL ASSOCIATION

Interactions
A Medical Staff Leadership Program

November 29, 1990
The Peabody Orlando
Orlando, Florida

Medical staff leaders may find that their special clinical skills and extensive clinical experience do little to prepare them for the complexities of this demanding role. A role that requires the skills and sensitivity of an arbitrator, facilitator, manager, advisor, negotiator, communicator, problem solver, peacemaker and professional peer.

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If you are a new chief-of-staff, department director, committee chairman or you serve in any other leadership capacity, the AMA's new Interactions can provide you with the self-assurance and skills you need to be successful in this challenging new role.

Leadership Objectives
- Improve emerging medical staff leaders' understanding of skills needed to perform formal duties.
- Enhance the understanding of medical staff leadership conflicts inherent in today's healthcare scene.
- Increase ability to interact effectively with medical staff peers and hospital/governing body leadership.

Location and Date
The AMA Medical Staff Leadership Program will be conducted on Thursday, November 29, 1990, at the Peabody Orlando Hotel, in Orlando, Florida. For ease of accommodations and travel, the AMA offers the program one day prior to the 1990 Hospital Medical Staff Section Interim Meeting, and three days prior to the 1990 AMA Interim Meeting.

Registration
For immediate registration or information, **call toll-free 1-800-621-8335.** Please have your MasterCard or Visa ready.

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Wednesday, November 7, 1990

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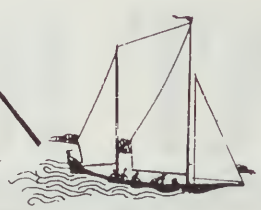


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Amebic Liver Abscess: Review of Twenty-nine Cases with an Evaluation of Imaging Techniques 1085
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In amebic liver abscess, prompt diagnosis reduces morbidity and mortality. The use of specific imaging modalities markedly shortens the time required for diagnosis.

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John Archer was the first person to receive a medical degree in the western hemisphere and was one of the founders of the Medical and Chirurgical Faculty of Maryland.

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DECEMBER, 1990

RECOMMENDATIONS OF THE ADVISORY COMMITTEE FOR ELIMINATION OF TUBERCULOSIS

The following recommendations are abstracted from the MMWR Vol.39/No. RR-8, May 18, 1990

THE USE OF PREVENTIVE THERAPY FOR TUBERCULOSIS INFECTION IN THE UNITED STATES

INTRODUCTION

The appropriate use of preventive therapy will play a crucial role in efforts to eliminate tuberculosis in the United States by the year 2010 (1). When taken as prescribed, isoniazid preventive therapy is highly effective in preventing latent tuberculosis infection from progressing to clinically apparent disease. In controlled trials conducted by the Public Health Service in ordinary clinical and public health settings, isolated preventive therapy reduced the incidence of disease by 54%-88% (2). Isoniazid preventive therapy was estimated to be 98% effective among children in Houston and in recently infected nursing home patients who were compliant with therapy (3,4). Isoniazid preventive therapy has been shown to be effective for long periods and to be reasonably cost-effective (5,6).

The following recommendations of the Advisory Committee for Elimination of Tuberculosis (ACET) are intended to increase the effective application of preventive therapy in the United States. Health department, medical and nursing schools, schools of public health voluntary agencies, and professional societies may use these guidelines to educate health-care providers about the appropriate use of preventive therapy in efforts to eliminate tuberculosis. The ACET recognizes that clinical decisions regarding preventive therapy must be individualized and based on an assessment of benefits and risks. These recommendations are intended to assist physicians and patients in making these decisions.

RECOMMENDATIONS

The main purpose of preventive therapy is to prevent latent (asymptomatic) infection from progressing to clinical disease (9). Such therapy also is used to prevent initial infections and to prevent recurrence of past disease.

High-Risk Groups

Certain groups within the infected population are at greater risk than others and should receive high priority for preventive therapy. In the United States, persons with any of the following six risk factors should be considered candidates for preventive therapy, regardless of age, if they have not previously been treated:

- Persons with human immunodeficiency virus (HIV) infection ($\geq$5 mm)* and persons with risk factors for HIV infection whose HIV infection status is unknown but who are suspected of having HIV infection.
- Close contacts of persons with newly diagnosed infectious tuberculosis ($\geq$5mm). In addition, tuberculin-negative ($<$5mm) children and adolescents who have been close contacts of infectious persons within the past 3 months are candidates for preventive therapy until a repeat tuberculin skin test is done 12 weeks after contact with infectious source.
- Recent converters, as indicated by a tuberculin skin test ($\geq$10mm increase within a 2-year period for those $<$35 years old; $\geq$15 mm increase for those $\geq$35 years of age).
- Persons with abnormal chest radiographs that show fibrotic lesions likely to represent old healed tuberculosis ($\geq$5mm).
- Intravenous drug users known to be HIV-seronegative ($\geq$10 mm).

***The criterion for a positive reaction to a skin test (in millimeters of induration) for each group is given in parentheses and is based on data cited in references 1-13.**

Pneumococcal Vaccine: Remember to immunize those 65 years and over, and those with chronic illness

- Persons with medical conditions that have been reported to increase the risk of tuberculosis (≥10 mm).

In addition, in the absence of any of the above risk factors, persons <35 years of age in the following high-incidence groups are appropriate candidates for preventive therapy if their reaction to a tuberculin skin test is ≥10 mm:

- Foreign-born persons from high-prevalence countries.
- Medically underserved low-income populations, including high-risk racial or ethnic minority populations, especially Blacks, Hispanics, and Native Americans.
- Residents of facilities for long-term care (e.g., correctional institutions, nursing homes, and mental institutions).

In addition to the groups listed above, public health officials should be alert for other high-risk populations in their communities. For example, through a review of cases reported in the community over several years, health officials may use geographic or sociodemographic factors to identify groups that should be targeted for intervention. Screening and preventive therapy programs should be initiated and promoted within these populations based on an analysis of cases and infection in the community. To the extent possible, members of high-risk groups and their health-care providers should be involved in the design, implementation, and evaluation of these programs. Staff of facilities in which an individual with disease would pose a risk to large numbers of susceptible persons (e.g., correctional institutions, nursing homes, mental institutions, other health-care facilities, schools, and child-care facilities) may be considered for preventive therapy if their tuberculin reaction is ≥10 mm induration.

Preventive Therapy

The usual preventive therapy regimen is isoniazid (10 mg/kg daily for children, up to a maximum adult dose of 300 mg daily). The recommended duration of isoniazid preventive treatment varies from 6 to 12 months of continuous therapy (9). Twelve months of therapy is recommended for persons with HIV infection and persons with stable abnormal chest radiographs consistent with past tuberculosis. The other groups should receive a minimum of 6 continuous months of therapy. To ensure that persons in high-risk groups comply with therapy, health-care personnel should, if necessary, directly observe the therapy. Isoniazid can be given twice weekly in a dose of 15 mg/kg (up to 900 mg) when therapy must be directly observed and resources are inadequate for daily therapy. Recommendations of the ACET are summarized in Table 1.

Patients should be thoroughly educated and should be monitored monthly, in person, by appropriately trained personnel. Isoniazid preventive therapy should not be prescribed if monthly monitoring cannot be done. Some data indicate that Black and Hispanic women, especially postpartum, may be at greater risk of serious or fatal adverse reactions, even when this risk is low, is as important as providing the benefits of preventive therapy. Additional details on preventive therapy have been published (9).

References

1. CDC. A strategic plan for the elimination of tuberculosis in the United States. MMWR 1989;38(suppl no. S-3):1-25

2. Comstock GW, Woolpert SF. Preventive therapy. In: Kubica GP, Wayne LG, eds. The mycobacteria: a sourcebook. New York: Marcel Dekker, Inc, 1984:1071-82

3. Hsu KH. Thirty years after isoniazid: its impact on tuberculosis in children and adolescents. JAMA 1984;251:1283-5

4. Stead WW, To T, Harrison RW, Abraham JH, Benefit-risk consideration in preventive treatment for tuberculosis in elderly persons. Ann Intern Med 1987;107:843-5

5. Comstock GW, Baum C, Snider DE. Isoniazid prophylaxis among Alaskan Eskimos: a final report of the Bethel isoniazid studies. Am Rev Respir Dis 1979;827-30.

6. Rose DN, Schecter CB Fahs MC, Silver AL Tuberculosis prevention: cost-effectiveness analysis of isoniazid chemoprophylaxis. Am J Prev Med 1988;4:102-9.

7. Glassroth JB, Hopewell PC, Bailey WC, Harden J. Why tuberculosis is not prevented. Am Rev Respit Dis (in press).

TABLE 1. Criteria for determining need for preventive therapy for persons with positive tuberculin reactions, by category and age group

Category	Age group (yrs)	
	<35	≥35
With risk factor*	Treat at all ages if reaction to 5TU purified protein derivative (PPD) ≥10 mm (or ≥5 mm and patient is recent contact, HIV-infected, *or* has radiographic evidence of old TB)	
No risk factor High-incidence group†	Treat if PPD ≥10 mm	Do not treat
No risk factor Low-incidence group	Treat if PPD ≥15 mm§	Do not treat

*Risk factors include HIV infection, recent contact with infectious person, recent skin-test conversion, abnormal chest radiograph, intravenous drug abuse, and certain medical risk factors (see text).

†High-incidence groups include foreign-born persons, medically underserved low-income populations, and residents of long-term-care facilities.

§Lower or higher cut points may be used for identifying positive reactions, depending upon the relative prevalence of *Myobacterium tuberculosis* infection and nonspecific cross-reactivity in the population.

8. American Thoracic Society/CEC. Treatment of tuberculosis and tuberculosis infection adults and children. Am Rev Respir Dis 1986;134:355-63

9. American Thoracic Society/CDC. Diagnostic standards and classification of tuberculosis. Am Rev Respir Dis (in press).

10. Narain R, Chandrasekhar P, Naganna K, A fresh look at the definition of tuberculous infection and new infection. Ind J Med Res 1976;64:336-57.

11. Stead WW, To T. The significance of the tuberculin skin test in elderly persons. Ann intern Med 1987;107:837-42.

13. Kopanoff DE, Snider DE, Caras GJ. Isoniazid related hepatitis. Am Rev Respir Dis 1978;117:991-1001.

14. Franks AL, Binkin NJ, Snider DE, Rikew WM, Becker S. Isoniazid hepatitis among pregnant and postpartum Hispanic patients. Public Health Rep 1989;104:151-5.

15. Moulding TS, Redeker AG, Kanel GC. Twenty isoniazid-associated deaths in one state. Am Rev Respir Dis 1989;140:700-5.

SCREENING FOR TUBERCULOSIS AND TUBERCULOSIS INFECTION IN HIGH-RISK POPULATIONS

Recommendations of the Advisory Committee for Elimination of Tuberculosis

HIGH-RISK GROUPS

On the basis of published reports in the medical literature and CDC surveillance data, the Advisory Committee for Elimination of Tuberculosis (ACET) recommends that the following groups be screened for tuberculosis and tuberculosis infection:

- Persons infected with the human immunodeficiency virus (HIV).
- Close contacts of persons known or suspected to have tuberculosis, sharing the same household or other enclosed environments.
- Persons with medical risk factors known to increase the risk of disease if infection has occurred (see below).
- Foreign-born persons from countries with high TB prevalence.
- Medically underserved low-income populations, including high-risk racial or ethnic minority populations (e.g., Blacks, Hispanics, and Native Americans).
- Alcoholics and intravenous drug users.
- Residents of long-term-care facilities, correctional institutions, mental institutions, nursing homes/facilities, and other long-term residential facilities.

Flexibility must be maintained in defining high priority groups for screening. (Consult your local health department for local recommendations.)

GENERAL COMMENTS ON SCREENING

Screening is done to identify infected persons at high risk of disease who would benefit from preventive therapy, and to find persons with clinical disease in need of treatment. Therefore, appropriate follow-up, after initial screening, is essential.

Screening Methods

A detailed discussion of current screening methods for tuberculosis infection and tuberculosis can be found in the American Thoracic Society/CDC publication "Diagnostic Standards and Classification of Tuberculosis" (2).

Tuberculin skin testing is the standard method of identifying persons infected with M. tuberculosis. The intracutaneous administration of 5 units of purified protein derivative (PPD) tuberculin (Mantoux test) is the best means of detecting infection, although multiple-puncture devices may be used for screening large, low-risk populations.

Chest radiography or sputum smear examinations are the screening methods of choice only when the objective is intended to identify persons with current pulmonary disease and when the administration of preventive therapy to infected persons is not possible (e.g., among the homeless). In all screening programs, patients with signs and/or symptoms suggesting pulmonary or pleural tuberculosis should have a standard posterior-anterior chest radiograph, regardless of the tuberculin skin test result. Radiographic abnormalities suggestive of tuberculosis have been described in medical literature; however, tuberculosis may produce almost any form of pulmonary radiographic abnormality, especially in immunosuppressed persons (2).

RECOMMENDATIONS FOR SPECIFIC HIGH-RISK GROUPS

Persons with HIV infection and Intravenous Drug Users

Recommendations for screening individuals with HIV infection and intravenous drug abusers to determine the presence of tuberculosis infection have been published (3).

Tuberculin testing for persons with HIV infection should be conducted at the following sites:

- Tuberculosis and chest disease clinics
- Substance abuse treatment centers

- AIDS (acquired immunodeficiency syndrome) clinics
- HIV counseling and testing sites (including sexually transmitted disease [STD] clinics)
- Other facilities in which HIV testing is offered

Administrators of these facilities should ensure that the recommended screening is completed.

Contacts of Infectious Cases

Because close contacts of persons with tuberculosis are at extremely high risk of infection and disease, they should be identified within 3 days and examined within 7 days after the infectious index case has been diagnosed. Comprehensive guidelines for identifying, examining, and managing contacts of persons with infectious tuberculosis have been published (4). State and local health departments are responsible for ensuring that these monitoring activities are completed.

Persons with Other Medical Risk Factors

Health-care providers should tuberculin test all patients with medical risk factors that substantially increase the risk of tuberculosis. These medical risks factors include:

- Silicosis
- Gastrectomy
- Jejunoileal bypass
- Weight of 10% or more below ideal body weight
- Chronic renal failure
- Diabetes mellitus
- Conditions requiring prolonged high-dose corticosteroid therapy and other immunosuppressive therapy
- Some hematologic disorders (e.g., leukemia and lymphomas)
- Other malignancies

References

1. CDC. A strategic plan for the elimination of tuberculosis in the US. MMWR 1989;38 (suppl no. S-3):1-25.

2. American Thoracic Society/CDC. Diagnostic standards and classification of tuberculosis. Am Rev Respir Dis (in press)

3. CDC. Tuberculosis and human immunodeficiency virus infection: recommendations of the Advisory Committee for the Elimination of Tuberculosis. MMWR 1989; 38:236-50.

4. American Thoracic Society/CDC. Control of tuberculosis. Am Rev Respir Dis 1983; 128:336-42.

5. Hinman AR, Judd JM, Kolnik JP, Daitch PB. Changing risks in tuberculosis. Am J Epidemiol 1976; 103:486-97.

6. Friedman LN, Sullivan GM, Bevilaqua RP, Loscos R. Tuberculosis screening in alcoholics and drug addicts. Am Rev Respir Dis 1987; 136:1188-92.

7. Grzybowski S, Allen EA, Black WA, Chao CW, Enarson DA, Isaac-Renton JL, Peck SHS, Xie HJ. Inner-city survey for tuberculosis: evaluation of diagnostic methods. Am Rev Respir Dis 1987; 135: 1311-5.

8. CDC. Tuberculosis control among homeless populations. MMWR 1987; 36:257-60.

9. Judson FN, Sbarbaro JA, Tapy JM, Cohn DL. Tuberculosis screening: evaluation of a food handlers' program. Chest 1983; 83:879-82.

10. Rieder HL, Cauthen GM, Kelly GD, Block AB, Snider DE. Tuberculosis in the United States. JAMA 1989;262:385-9.

11. CDC. Prevention and control of tuberculosis in correctional institutions: recommendations of the Advisory Committee for the Elimination of Tuberculosis. MMWR 1989;38:313-20,25.

12. Stead WW, Lofgren JP, Warren E, Thomas C. Tubrerculosis as an endemic and nosocomial infection amonth the elderly in nursing homes. N Engl J Med 1985; 312:1483-7.

13. Patterson WB, Craven DE, Schwartz DA, Nardell EA, Kasmer J, Noble J. Occupational hazards to hospital personnel. Ann Intern Med 1985; 102:658-80.

HAEMOPHILUS VACCINE NOW APPROVED FOR INFANTS

The Food and Drug Administration (FDA) has recently approved the Haemophilus b Conjugate Vaccine (diphtheria CRM_{197} Protein Conjugate) manufactured by Praxis Biologics, Inc., and distributed by Lederle Laboratories as HibTITER™ for use in infants as a three-dose immunization series at 2, 4, and 6 months of age, a two-dose series for children 7-11 months, and one dose for children 12-14 months of age. All of these infants and children should receive a booster dose of Hib conjugate vaccine at 15 months of age. The American Academy of Pediatrics Committee has recommended this schedule provisionally, and notes that any of the currenly licensed conjugate vaccines can be used for the booster dose at 15 months. For previously unimmunized children 15-60 months of age, one dose of Hib conjugate vaccine is still recommended (see table).

Because the peak incidence of bacterial meningitis caused by Haemophilus influenzae type b is in children less than one year of age, this recommendation change is particularly important. This recommendation is for HibTITER™ only at this time.

Ref. 1. MMWR 1990;39:698-9.

2. Am Acad Peds. News Release. 10/8/90.

Age	HibTITER Vaccine Recommendation*
2-6 months	1 dose at 2, 4, and 6 months; booster at 15 months of age
7-11 months	2 doses, 2 months apart; booster at 15 months of age
12-14 months	1 dose; booster at 15 months of age
15-60 months	1 dose

* Am. Acad. Peds. Committtee noted that any currently licensed conjugate vaccine can be used for booster dose at or after 15 months.



THERAPY THAT MAY BE AS SILENT AS HYPERTENSION ITSELF

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Contraindications: VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

Warnings: *Angioedema:* Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASDTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

Hypotension: Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASDTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DDSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASDTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, *Drug Interactions* and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASDTEC or concomitant diuretic may be necessary.

Neutropenia/Agranulocytosis: Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

Precautions: *General: Impaired Renal Function:* As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASDTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

Evaluation of patients with hypertension or heart failure should always include assessment of renal function. (See DDSAGE AND ADMINISTRATION.)

Hyperkalemia: Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patienfs, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See *Drug Interactions.*)

Surgery/Anesthesia: In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

Information for Patients:

Angioedema: Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

Hypotension: Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

Hyperkalemia: Patients should be told not to use salt substitutes containing potassium without consulting their physician.

Neutropenia: Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

NDTE: As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

Drug Interactions:

Hypotension: Patients on Diuretic Therapy: Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

Agents Causing Renin Release: The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

Other Cardiovascular Agents: VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

Agents Increasing Serum Potassium: VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

Lithium: Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

Pregnancy – Category C: There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal oulcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

Nursing Mothers: Milk in lactating rats contains radioactivity following administration of ^{14}C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Adverse Reactions: VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

HYPERTENSIDN: The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASDTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

HEART FAILURE: The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASDTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

Cardiovascular: Cardiac arrest; myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, *Hypotension*); pulmonary embolism and infarction; pulmonary edema; rhythm disturbances; atrial fibrillation; palpitation.

Digestive: Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice); melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

Musculoskeletal: Muscle cramps.

Nervous/Psychiatric: Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

Urogenital: Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

Respiratory: Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

Skin: Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

Special Senses: Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

Angioedema: Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASDTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

Hypotension: In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

Clinical Laboratory Test Findings:

Serum Electrolytes: Hyperkalemia (see PRECAUTIONS), hyponatremia.

Creatinine, Blood Urea Nitrogen: In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASDTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

Hemoglobin and Hematocrit: Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

Other (Causal Relationship Unknown): In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

Liver Function Tests: Elevations of liver enzymes and/or serum bilirubin have occurred.

Dosage and Administration: *Hypertension:* In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASDTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

Dosage Adjustment in Hypertensive Patients with Renal Impairment: The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

Heart Failure: VASDTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, *Drug Interactions.*) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, *Pharmacodynamics and Clinical Effects.*) Oosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia: In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine >1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, *Heart Failure,* WARNINGS, and PRECAUTIONS, *Drug Interactions.*) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19486. J9VS61R2(819)

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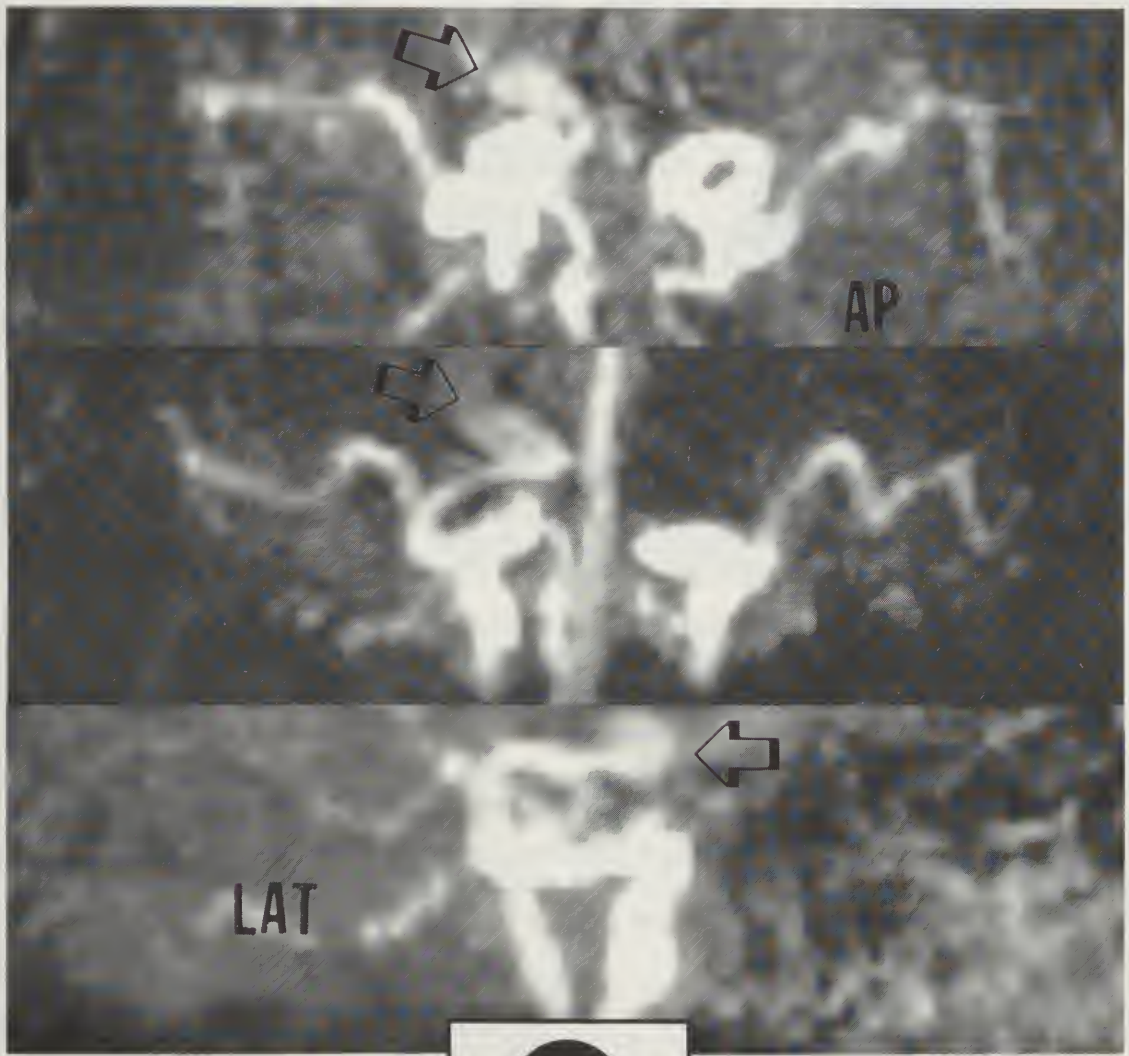
Our Pictures Are Worth A Thousand Words.™

Case #12

74 year old female with history of memory loss, drowsiness and slurred speech. No history of hypertension.

DIAGNOSIS: ANEURYSM of the RIGHT ANTERIOR COMMUNICATING ARTERY [arrow] revealed by MRA — MAGNETIC RESONANCE ANGIOGRAPHY.

MRA provides a non-invasive, 3-dimensional study of the blood vessels without the use of contrast injection. Investigative studies report a 95% accuracy in diagnosing aneurysms as small as 3-4mm with MRA. Thus, MRA represents an extremely sensitive and safe screening examination for patients at risk for aneurysm. The MRA study is performed as an adjunct to cranial MRI and takes only an additional 8 minutes. MRA is also accurate in screening the carotid bifurcation region for atherosclerotic disease.



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- ▲ "I looked in my checkbook and wondered where all the money had gone."
- ▲ "I don't know if I can meet the new Medicare requirements for billing, but I sure don't want to be fined!"
- ▲ "I'd hate to have my records subjected to a malpractice review right now."
- ▲ "My staff is buried in paperwork, but I can't afford to hire more people."
- ▲ "Our patient scheduling and recall system has fallen apart."
- ▲ "We got a computer to speed up our work, but the service we get is incredibly slow."

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Executive Director's Newsletter

December 1990

DEA Number Requirement

On December 4, 1989, Blue Cross and Blue Shield of Maryland announced that subsequent to January 1, 1990 all prescription drug claims for state employees would be rejected if the prescriber's DEA number was not also submitted. Since that time, Med Chi has diligently tried to overturn such a policy for the following reasons:

- Some physicians do not possess DEA numbers and will, therefore, be unable to write prescriptions for eligible insurance beneficiaries.
- Physicians who do not have a DEA number should not be required to obtain one merely to comply with a state instituted policy which clearly contravenes federal guidelines regarding DEA number usage.
- Such a requirement will result in DEA numbers being circulated to more people which will subsequently result in a higher incidence of illegal drug diversion.

A letter from Margaret A. Brophy, Chief, Registration Unit, Drug Enforcement Administration, clearly delineates the DEA policy regarding dissemination of DEA numbers:

> It is the DEA's policy that a DEA registration number is unique and was designed to impose a "closed system" on the prescribing, dispensing and administering of licit controlled substances. **It is not intended to be an identification number. (Emphasis added).** The intended purpose of a DEA registration number is to provide a record of authorized possession and responsibility for a controlled substance in accordance with the Controlled Substances Act.
>
> The DEA does not endorse the use of a registration number by insurance companies or others for any reason inconsistent with its intended purpose. Prescriptions for controlled substances will, of course, display a DEA registration number, however, insurance companies or claim processors cannot demand a DEA registration number on a prescription for a non-controlled substance."

Although Med Chi representatives have been told that this policy will be reviewed, no definite resolution has occurred. If you or any of your patients have experienced problems in complying with this requirement or agree that it is an inappropriate use of the DEA number, please send a letter to Med Chi's legal department addressing your concerns.

Maryland Medical Journal Index

This issue of the *MMJ* features the annual index for 1990. This index includes listings by author and by topic to assist you in referencing material published over the past year.

Physician's Practice Digest

In late October, Med Chi introduced the *Physician's Practice Digest (PPD)* a publication that addresses issues related to the business concerns of practicing physicians. To best meet the needs of its membership, Med Chi is interested in incorporating your ideas about this publication in future issues. If you have any suggestions, opinions, or an interest in contributing articles to the *PPD*, please send correspondence to Editor, *Physician's Practice Digest*, 1211 Cathedral Street, Baltimore, MD 21201.

Straight Forward

In early November, all licensed Maryland physicians received copies of *Straight Forward*, a newspaper designed to inform physicians about news and information related to drug and alcohol rehabilitation. The official publication of the Physician Rehabilitation Committee in cooperation with the Med Chi Alliance Against Drug Abuse (MAADA), *Straight Forward* will feature guest columns written by experts in the field of substance abuse and will also serve as a forum for readers with questions and ideas about specific drug and alcohol addiction topics. If you have any suggestions, opinions or an interest in contributing articles to *Straight Forward*, please write to Vivian Smith, Managing Editor, *Straightforward*, 1211 Cathedral Street, Baltimore, MD, 20201 or call 301-539-0872 or 1-800-492-1056.

Med Chi Handbook, Bylaws and Compendium

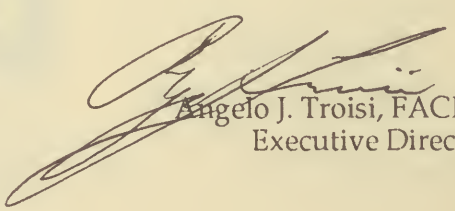
Copies of the Med Chi *Handbook* for 1990-1991, the May 1990 edition of the *Bylaws* and the 1990 edition of the *Compendium of Laws, Regulations, Opinions and Policies Governing the Practice of Maryland* are now available for all Med Chi members. For a free copy of any of these publications, contact Med Chi's Communications Department at 301-539-0872 or 1-800-492-1056.

Doctor/Lawyer/ Teacher Partnership Against Drugs

More than 100 Maryland physicians have volunteered to participate in the Doctor/Lawyer/Teacher Partnership Against Drugs, a new program that will bring doctor/lawyer education teams into schools to discourage 7th graders from using drugs. The program is essentially a "rap-session" where physicians talk with students about the physical dangers of drug abuse and lawyers emphasize the legal consequences of using drugs. Additional physician volunteers are urgently needed to participate in this effort. To volunteer, contact your local component society or call Betsy Newman in the Public Relations Department at 301-539-0872 or 1-800-492-1056.

Pneumococcal Vaccine

Adele Wilzack, Secretary, Maryland Department of Health and Mental Hygiene, is requesting all physicians in Maryland to provide pneumococcal vaccine as a preventive measure to all patients over 65 and others with chronic medical conditions. Physicians are encouraged to stock this vaccine and make it available in their office. The vaccine has a two-year shelf life (two years from the date of manufacture) and its cost is covered by Medicare. The CPT code for pneumococcal vaccine, polyvalent, is 90732. It is important to immunize children as well as adults over 65.



Angelo J. Troisi, FACHE
Executive Director

How to Respond to a PRO Quality Inquiry

Background

As of April 1, 1989, Utilization and Quality Control Peer Review Organizations, commonly known as PROs, have entered into "The Third Scope of Work," i.e., the third round of PRO contracts negotiated between the Health Care Financing Administration (HCFA) and the nation's 54 PROs. Despite new contractual provisions in the Third Scope of Work, PROs still have as their primary responsibility the medical review of services reimbursed by Medicare. PROs review such services to ensure that they are: (a) medically necessary, (b) provided in an appropriate setting and (c) meet professionally recognized standards of care.

Quality Intervention Plan under the Third Scope of Work

Cases selected for review by PROs under the Third Scope of Work are passed through six generic quality screens, identical to those used in the Second Scope of Work. However, the Third Scope of Work rules also require the implementation of a Quality Intervention Plan (QIP). Under the QIP, each PRO is required to perform a quality review and implement interventions when quality concerns are identified. The following is an overview of the QIP:

- Every case selected for retrospective review is screened for potential quality problems.
- If a potential quality problem is identified, the QIP requires the PRO to allow 30 days for the physician and/or provider to comment on the proposed quality problem.
- A PRO physician reviews comments submitted within the specified time frames in order to confirm or resolve the potential quality problem.
- When the PRO determines that there is a confirmed quality problem, the PRO must identify the source of the problem and notify the affected party of the final determination. The notice to the responsible party must include sufficient detail so that he/she will clearly understand the identified problem, what the appropriate action should have been in the case, the severity of the problem, and the action to be taken to resolve the quality problem, if appropriate.
- A PRO physician must assign a severity level to each case with a confirmed quality problem. The three-level severity system is based upon the degree of harm or potential for harm to the patient. This system was developed with the assistance of physicians representing the major medical specialty societies.

The three levels are:

- Confirmed quality problem with significant adverse effects on the patient (Level III);
- Confirmed quality problem with the potential for significant adverse effects on the patient (Level II); and
- Confirmed quality problem without the potential for significant adverse effects on the patient (Level I).

"Significant adverse effect" is defined as (1) patient management which results in anatomical or physiological impairment, disability, or death, or (2) unnecessarily prolonged treatment, complications or readmission.

- Each case with a confirmed quality problem is assigned a weight based upon the severity level of the problem. Each severity level has an assigned weight, from a weight of 25 for a Level III problem, to a weight of 5 for a Level II problem, to a weight of 1 for a Level I problem.

Each quarter the PRO will profile the total weights accumulated for reviews completed in that quarter by problem source (e.g., physician and provider). The total weight will determine the corrective action to be implemented. When the quarterly profile shows that a particular physician has a total weighted score of three points or more, the PRO must initiate corrective action. The Third Scope of Work states that when a severity Level II or III potential quality problem is identified or a pattern of severity Level I potential quality problems is identified, the responsible party (i.e., the physician and/or provider as appropriate) will be notified of the potential quality problem and provided with an opportunity to respond and discuss the issue with a PRO physician. The initial notification should include sufficient detail so that the responsible party will clearly understand the identified problem and the severity of the problem.

How to Respond

Following is a list of steps to take if you receive a letter of inquiry regarding quality concerns from your PRO:[1]

Step 1: Remain calm. Do not send angry letters back to the PRO; discuss the quality issue with a peer.

Step 2: Review the medical record to make sure the PRO hasn't made a factual error in its review of the case. The PRO may have overlooked a critical entry in the medical record.

Step 3: Do not call your PRO unless there is some clear advantage to doing so. A preferred course of action is to write to your PRO, with a copy to the chief of the hospital medical staff, component medical society and Med Chi's PRO Monitoring Committee.

In your communication with your PRO, present factual information without self-serving statements, argumentative remarks, explicit or implicit admissions of error in judgment, or criticism of care provided by others.

Step 4: You may request a personal interview with the district medical director and specialist consultant prior to writing a response. A personal interview may be more appropriate than writing, particularly in a complicated case.

Step 5: Keep your response and all other communications in a separate file other than the patient's medical record. Therefore, this information will not be inadvertently disclosed if the medical record is produced in response to a subpoena.

As always, detailed histories and patient records are important to keep. They help you to remember clearly relevant facts involved in the treatment and the course of the treatment.**

---

1. Steps 3-5 were adopted with permission from the California Medical Association's brochure, "What Physicians Should Know About Working With CRMI and Other Review Organizations."

**Written by the AMA's Department of Health Care Review and modified by Med Chi.

TO MY PATIENTS

Please read the following. You may be eligible for Medical Assistance/Pharmacy Assistance Benefits.

MARYLAND MEDICAL ASSISTANCE PROGRAM

	Income Eligibility Limits (Effective 7/1/90)		Asset Eligibility Limits
Family Size	Monthly	Annual	
1	$384	$4,600	$2,500
2	$425	$5,100	$3,000
3	$467	$5,600	$3,100
4	$509	$6,100	$3,200
5	$566	$6,792	$3,300
6	$623	$7,476	$3,400
7	$701	$8,412	$3,500
8	$770	$9,240	$3,600
9	$832	$9,984	$3,700
10	$898	$10,776	$3,800

MARYLAND PHARMACY ASSISTANCE PROGRAM
CURRENT INCOME/ASSET SCALES

Effective December 1, 1989

Number Of Persons In Unit	Gross Income*		Asset Scale
	Monthly	Yearly	
1	$587.50	$7,050	$3,750*
2	$637.50	$7,650	$4,500
3	$700.00	$8,400	$4,650
4	$754.16	$9,050	$4,800
5	$808.33	$9,700	$4,950
6	$866.66	$10,400	$5,100
7	$933.33	$11,200	$5,250
8	$1,000.00	$12,000	$5,400
9	$1,070.83	$12,850	$5,550
10	$1,137.50	$13,650	$5,700
Each Additional Person		$800	$150*

*NO CHANGE FROM DECEMBER 1, 1988 SCALES

Quotes From Medical Mutual Liability*

"I think it's fair to say that the claims-made basis of underwriting was designed by its inventors to advantage themselves rather than their insureds. Why else do most insurers want to offer claims-made exclusively?"

February 17, 1982

"While initially the claims-made approach is less costly, as time progresses it becomes as expensive, or slightly more so, than occurrence basis coverage."

February 17, 1982

"There is no way to predetermine the full cost for claims-made coverage."

July 17, 1981

"First years premium afforded under claims-made...constitutes premium deferral, not a premium reduction."

October 7, 1981

"Your society has right along staunchly supported the underwriting of coverage on an occurrence basis. We continue to do so."

October 7, 1981

*All quotes taken from letters signed by Manning W. Alden, MD, as President of the Medical Mutual Liability Insurance Company of Maryland. Copies available for inspection upon request.

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One Minute With Diabetes

Meal Planning

Doctor, please help me with my meal plan. My height is 62 inches and my weight is 160 lbs when it should be 100 lbs. Both my blood cholesterol and blood glucose are elevated. Looking after four children and running a household give me plenty of exercise. The 1500 calorie meal plan given to me by the dietitian requires me to purchase or prepare special foods and to read package labels that do not make sense. Should I have a second appointment with the dietitian for more instruction?

There is not a single meal plan that suffices to treat satisfactorily all individuals with diabetes. Diabetes does not require special foods - just the same nutrients, vitamins, and minerals as the non-diabetic members of the family. The fundamental principles of nutrition that apply to healthy people apply to those with diabetes. The most important dietary concept concerns total caloric intake. In youth, caloric intake must be sufficient to assure normal growth, development, and maturation. For adults with obesity, the total caloric intake must be reduced. Even small amounts of weight loss will lower both blood glucose and cholesterol levels.

Some diet maxims:

1. At total bed rest, an adult requires about 1600 calories per day.
2. To lose one pound of body weight over a period of one week, one must consume 3500 calories less than what is needed to maintain the usual weight (500 calories per day for one week).
3. The average adult requires about six hours of dietary instruction to be able to understand and apply the fundamental principles of meal planning and package label interpretation.
4. Daily exercise, such as walking up 20 flights of stairs, will consume approximately 70 calories (equivalent to one slice of bread) and produce one ounce of body weight loss per week. Walking consumes about 100 calories per mile.
5. The most important thing that can be learned from a weight loss program is good eating habits.

Our problem patient today - diabetic, obese, and with hypercholesterolemia - fortunately recognizes that she does not understand her meal plan and wants to do something about it. Since her history suggests an active person, it is reasonable that basic caloric needs might be 2000 calories per day. If she is instructed in the use of a 1200 calorie meal plan and adheres to it, she would have a deficit of 5600 calories per week. This would bring about a weight loss of almost two pounds per week on average. Body fluid adjustments and activity would be factors causing variations in the program.

Present thinking is that the 1200 calorie meal plan should be approximately 30 percent fat (360 calories), 50 percent carbohydrates (600 calories) and 20 percent protein (240 calories). The dietitian will recommend food selections based on ethnic and personal likes and dislikes. He or she will advise patients about serving sizes and exchanges, and assist them in reading and interpreting package labels in order to determine acceptable carbohydrate and lipid content. Sodium restriction is often needed and can easily be incorporated into the basic instruction. A poor method of meal preparation can double its caloric content. Thus, appropriate methods of food preparation should be discussed. Good dietary instruction utilizes visual aids and should include individual and group instruction. Practice classes in "eating out in a restaurant" or "eating in a cafeteria" can be helpful.

Physicians should have a list of qualified dietitians working in the area of their practice to whom they can refer patients for instruction. Adequate diet instruction is often expensive and frequently not covered by insurance programs, but it is essential for the proper management of all diabetic patients, especially those with hyperlipidemia.

DeWITT E. DeLAWTER MD
Editor ■

In Appreciation

The members of the Editorial Board of the *Maryland Medical Journal* are most grateful to various specialists in the Maryland medical community who graciously contribute their time and expertise to the review of manuscripts for our publication. In 1990, the following individuals assisted in *MMJ*'s review process:

JOHN G. BARTLETT MD	MARIAN D. DAMEWOOD MD	PETER HARTMAN MD
EUGENE KATZ MD	HERMAN C. MAGANZINI MD	ANTHONY TOMMASELLO

A MEDICAL TEST SHOULD **NOT** SCARE PEOPLE HALF TO DEATH!

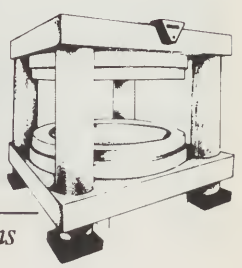


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Intensification of Adjuvant Chemotherapy in Patients with Primary Breast Cancer and Positive Axillary Nodes

During the past two decades, irrefutable evidence has been obtained from a number of trials to indicate that the administration of systemic chemotherapy after operation has benefited patients with primary breast cancer. The results from these studies are largely responsible for the therapeutic focus in breast cancer treatment since 1958. There is universal agreement, however, that a need exists for enhancing the effectiveness of postoperative chemotherapy. Despite manipulations of doses, schedules, and combinations of drugs, progressively better disease-free survival and survival have not been observed. Numerous hypotheses have been formulated to explain why such improvements have not occurred in spite of the major efforts exerted toward accomplishing these goals. Foremost among them is the contention that inadequate drug dose administration is a major factor responsible for the failure to achieve a greater therapeutic effect in responsive tumors.

In an article published in 1984,[1] Hryniuk and Bush presented compelling arguments for recognizing the importance of dose intensity in the use of chemotherapy for metastatic breast cancer. They defined dose intensity as the amount of drug administered per unit of time, expressing intensity as mg/m^2/week using a single drug regimen. For the determination of dose intensity using regimens containing several drugs, they used certain calculations and assumptions but still expressed the intensity of the regimen as mg/m^2/week, assuming that "each of the various drugs in a combination has equivalent activity and that the major effect of scheduling is to vary the total amount of drug delivered per unit of time." Hryniuk and Bush considered that differences in drug scheduling can be ignored except insofar as dose intensity is varied. Their retrospective review and analysis of the literature led them to conclude that the higher the dose intensity, the higher the remission rate of patients with advanced breast cancer. They also emphasized the fact that when *actual* rather than *projected* doses were used in their calculations, the relationship between response rate and dose intensity became even more evident. Their concept was established using information obtained by other investigators from nonrandomized studies that were not originally carried out to assess the issue of dose intensity. Results from several recently reported randomized trials are purported to support the Hryniuk thesis.[2] A study by Tannock et al is most significant in that regard,[3] in that it reports results from a prospectively randomized trial conducted to test the relationship between two dose levels of cyclophosphamide, methotrexate, fluorouracil (CMF) and the remission rate in patients with advanced breast cancer.

Using the same approaches that they employed for evaluating dose intensity in advanced disease, Hryniuk and his associates correlated the dose intensity of adjuvant chemotherapy with relapse-free survival.[4,5] Their retrospective review of the literature led them to conclude in 1986 that, as in advanced disease, dose intensity of chemotherapy correlated with relapse-free survival and that this correlation was independent of the number of positive nodes or menopausal status.

It is generally agreed that high-dose chemotherapy and marrow transplant is an appropriate experimental clinical approach for the treatment of advanced metastatic breast cancer. However, it is also reasonable to examine the worth of a chemotherapy intensification approach in earlier stage disease where chances for cure may be greater and where treatment short of marrow transplant would be more appropriate.

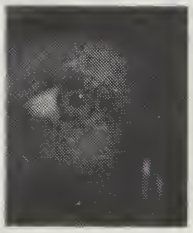
To evaluate the effect of dose intensification and increased cumulative dose of adjuvant chemotherapy, the National Surgical Adjuvant Breast/Bowel Project (NSABP) has initiated protocol B-22. Patients who have a histologically-proven primary operable breast cancer, and who have been found, postoperatively, to have one or more histologically-positive axillary lymph nodes but who have no evidence of distant metastases, will be randomized to receive one of the following three regimens: (1) Adriamycin 60 mg/m^2 and cyclophosphamide 600 mg/m^2 I.V. every twenty-one days for four courses. (2) Adriamycin 60 mg/m^2 I.V. every twenty-one days for four courses and cyclophosphamide 1200 mg/m^2 I.V. every twenty-one days for two courses, i.e., on days 1 and 22. No more cyclophosphamide will be given during the third or fourth doses of adriamycin. (3) Adriamycin 60 mg/m^2 and cyclophosphamide 1200 mg/m^2 I.V. every twenty-one days for four courses. In all three regimens, patients who are fifty years of age or older, receive tamoxifen 10 mgm orally twice a day beginning on day one, and are to be continued for five years.

The Surgical Oncology Program at the University of Maryland, being an active member of NSABP, is seeking large patient accrual throughout the state of Maryland and from the surrounding states to be treated according to these studies. Such patients can be treated in their community, by their own physicians, under the guidelines of the NSABP. I highly recommend that negative lymph node patients be admitted on a controlled study to find the most effective therapy.

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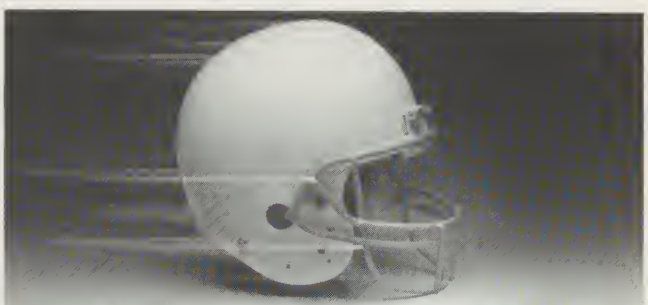
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References

1. Hryniuk W and Bush H. The importance of dose intensity in chemotherapy of metastatic breast cancer. J Clin Oncol 1984;2:1281-1288.
2. Hryniuk W. More is better. J Clin Oncol 1988;6:1365-1367.
3. Tannock IF, Boyd NF, DeBoer G et al. A randomized trial of two dose levels of cyclophosphamide, methotrexate, and fluorouracil chemotherapy for patients with metastatic breast cancer. J Clin Oncol 1988;6:1377-1387.
4. Hryniuk W, Levine MN, Levin L. Analysis of dose intensity for chemotherapy in early (stage II) and advanced breast cancer. NCI Monogr, 1986;1:87-94.
5. Hryniuk W and Levine MN. Analysis of dose intensity for adjuvant chemotherapy trials in stage II breast cancer. J Clin Oncol 1986;4:1162-1170.

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Chinese Medicine and Politics: Mao to Tiananmen

Caryl E. Peterson PhD and Ronald G. Peterson MD

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The experience of China during the last forty years demonstrates that the availability and quality of medical care is inexorably tied to the political scene.

Entering China in October 1989, forty years after the founding of the People's Republic and just four months after the suppression of the prodemocracy movement in Tiananmen Square, our interest in healthcare and medical education intertwined with curiosity and concern about the political nature of this great nation. What impact have political changes during the last forty years had on the healthcare of one quarter of the world's population? What effect will the incidents at Tiananmen have on the lives of those now in the academic and medical corridors of China? What can be learned from the Chinese medical experience which may have application elsewhere?

Liberation to 1966

In 1949, Mao Zedong and his followers overthrew the ruling Kuomintang forces of Chiang Kai-shek and established the People's Republic of China. As a result of the ravages of the Japanese occupation and the ensuing socioeconomic chaos of the 1940s, Mao inherited a healthcare system incapable of meeting the needs of the new Republic. Infectious, parasitic, and nutritional diseases, sustained by the poverty endured by the vast majority of the population, racked the country. China was considered the "sick man of Asia" with an average life expectancy of 32 years, a crude death rate of 25 per 1,000 population, and an infant mortality rate of 200 per 1,000 live births. Only 80,000 hospital beds were available for a population of 540 million.[1-3]

The twenty-two medical colleges of China were located primarily in the large cities and were operated by the state, private enterprise, or missionaries and foreign organizations. Curricula varied according to the nationality and goals of the sponsoring group and provided medical training lasting four to eight years. Of the nearly 600,000 physicians in China in 1949, only 38,000 had been schooled in western medicine.[2] The others practiced traditional Chinese medicine learned chiefly through apprenticeship. Many provinces had no qualified physicians.[4]

In the fifteen years following the revolution, the Communist regime in China formulated a central policy for improving medical care. Attention focused on the needs of workers, peasants, and the military. Health services were redistributed to provide better access for the 80 percent of the population living in rural areas. Emphasis was placed on preventive medicine, and programs were initiated to train more physicians and primary healthcare workers.

By 1952, existing medical colleges were expanded, relocated, and reorganized. The number of medical schools increased from 22 to 116 with each province of China having at least one.[4] Beginning in 1954, entrance to medical school was determined by national examination of students graduating from high school. A uniform five-year curriculum was established.

To augment the supply of physicians, "secondary medical schools" were founded. Students were accepted with the equivalent of a ninth grade education. After completing three years of study, they graduated with similar training but more autonomy than physician's assistants in this country.[3] These graduates staffed commune and factory health facilities.

One of the most creative innovations of the Mao era was the establishment, in 1965, of a corps of "barefoot doctors" (renamed "countryside doctors" in 1985 by the Chinese Ministry of Health)[5] to serve the rural population. The program, initiated in the Chuan Sha rice growing region near Shanghai, gave training in public health and primary care to lower middle class peasants.[5] The average age of these barefoot doctors was twenty-three, 50 percent were female, and most had only a primary or middle school education.[6] After completion of three to six months of instruction and clinical experience, they were sent to the countryside to diagnose and treat minor illnesses, give home care to the chronically ill or senile, monitor sanitation, dispense drugs, administer immunizations, provide maternal and child care, and assist in health education.

Under the rural cooperative system developed during the 1960s, peasants were organized into production teams (a natural village of 100-200 workers), work brigades averaging 1,000 people each, and communes (the townships) averaging 16,000 people. Barefoot doctors, like other peasants, received from the cooperative unit a salary based on the number of work points accumulated for each working day. Healthcare was financed through insurance provided by the welfare fund of the work brigade and supplemented by small monthly payments from each peasant.

Cultural Revolution

The Great Proletarian Cultural Revolution was launched in 1966. A surge of anti-intellectualism and an emphasis on the immediate improvement of the life of the worker and peasant resulted in great turmoil in China and destruction of much of its cultural heritage. Schools, universities, and medical colleges were closed. Medical students were graduated whether or not their training was complete. They and their professors were sent to the countryside to provide medical care, learn from the peasants, and be politically re-educated.[7] Researchers were assigned menial clinical tasks and publication of medical journals ceased. Hospitals were administered by soldiers, nurses, and junior staff of the correct political persuasion. Health expenditures for the urban population were reduced by 40 percent, and in many provinces as much as 75 percent of the funds were shifted to rural health programs.[2]

In 1972, medical colleges were reopened but their curriculum was limited to three years. Students were admitted from junior middle school with selection based, in part, on political considerations. Grades and examinations were eliminated as "punitive tools designed to baffle students."[2] Once admitted, no student failed to graduate except for health reasons.[1] "Even if these doctors haven't much talent," said Mao, "they would be better than the quacks and witch doctors, and the villages would be better able to afford to keep them."[8]

The cultural revolution endorsed and encouraged traditional medicine. Herbal drugs were cheaper and more readily available than western medications, and traditional physicians were already well established in rural areas. With the founding of schools of traditional medicine, more predictable training was provided for these practitioners.

Although the effects of the cultural revolution on quality medical education were devastating, the health policies formulated during the Mao era produced the most extensive public health program ever undertaken in a developing country.[8] It is impressive that with a per capita annual income of only $200 to $255, and two decades of minimal increase in food production,[8] China had significantly improved its healthcare by the time of Mao's death in 1976. Average life expectancy was approaching sixty-five years, and the infant mortality rate had dropped to 40 per 1,000 live births. Four million healthcare givers included 358,520 western doctors, 251,088 traditional doctors, 423,000 graduates of secondary medical schools, 1,600,000 barefoot doctors, 400,000 nurses, and a large number of paramedical personnel (Table).[2]

Redistribution of primary medical care and an emphasis on preventive medicine had greatly improved rural health. Anti-snail, anti-fly, and anti-prostitute campaigns had drastically reduced the incidence of schistosomiasis, malaria, and venereal disease. Leprosy, typhus, tuberculosis, and cholera were controlled. Immunization programs had eliminated smallpox, polio, and diphtheria as major disease threats.[9]

Although the campaign to improve *primary* healthcare for the masses had been highly successful, post-Mao China was to be faced with a serious shortage of *tertiary* medical services in the countryside. Of the 1,856,391 hospital beds in China in 1980 (2 per 1,000 people, as compared with 4.5 per 1,000 in the U.S.), there were only 1.5 per 1,000 in rural China

compared to 3.7 per 1,000 in the cities. The distribution of senior doctors was even more inequitable; 0.3 per 1,000 in the countryside compared to 2.4 per 1,000 in urban areas.[10]

Post-Mao China

In 1980, Mao's successors inaugurated major reforms in economics and medical education. To stimulate agricultural output, financial incentives were offered to the peasants. Land owned by the state was divided into parcels and allocated to families. A production quota for the parcel was assigned to each family. Excess produced beyond the quota could be sold to the government at a bonus price. In one year, per capita agricultural output increased 6 to 8 percent and per capita annual income 10 to 12 percent.[10] The incentive system spurred agricultural output and efficiency but reduced the communal nature of agricultural production, making peasant income less uniform.

A second major economic reform was decentralization of public financing. Before the 1980 initiatives, all revenues were collected by the central government with portions then allocated to local governments.[10] Following decentralization, the central government financed only institutions directly under its control. In health matters, this meant that the central government financed only national hospitals, research institutes, and medical schools. Each province became responsible for its own public services including healthcare, education, and welfare. Prosperous provinces were able to support better health facilities. This accentuated the inequitable distribution of rural health services.

One of the most immediate effects of these economic reforms was a decline in primary healthcare. Under the new agricultural system, many barefoot doctors found it more lucrative to return to farming. Those who remained were reluctant to continue their education and upgrade their skills. More affluent peasants chose to bypass care by less skilled providers in favor of direct treatment in regional clinics. Between 1978 and 1982, the number of barefoot doctors decreased 33 percent.[10]

Another effect of economic reform was the collapse of the cooperative medical insurance system. As agriculture shifted from a communal to a family quota system, premium payments were no longer subsidized or automatically deducted. Attempts to organize voluntary health insurance programs have met with limited success. In a voluntary system, people in poor health are most likely to enroll. Lacking contributions from the young and healthy, premium rates become prohibitive. In 1979, 80 to 90 percent of the rural population had health insurance supplied by an organized cooperative medical system. Within five years, the percent had been halved.[10]

In the decade since the death of Mao, many changes have occurred in Chinese medical education. It appears that effort is being expended to provide personnel with the clinical and research expertise required to cope with China's major new medical problems: cancer, mental illness, and cardiovascular and respiratory disease.[8]

Today, three types of physicians are being educated: practitioners of traditional Chinese medicine, of traditional Mongolian medicine, and of western medicine. Of the 116 medical colleges, eighty-seven are schools of western medicine.[17] Although supervised by the Ministry of Public Health, great latitude in curriculum design is permitted. Traditional medical colleges include western medicine in their programs. In western medical schools, at least 10 percent of the curriculum is devoted to traditional medicine.[4] All medical school curricula include requirements in English and political thought.[11]

Chinese students complete secondary education and apply for medical school at age seventeen. Criteria for admission include scores on national examinations, the quality of the secondary school record, and "proper morality" (political concerns). Although medical school applicants come from the upper part of their graduating class, engineering often attracts the top students because of special incentives offered in an attempt to modernize China's industry.[12]

Provincial or municipal medical colleges accept local students and offer a five or six-year curriculum. The few national medical colleges accept students from all parts of China and are more competitive. (Beijing Medical College recently had 3,000 applications for a class of 200.)[3] Curricula in these institutions extend six to eight years and include opportunities for research and specialization.

Medical students, at least 50 percent of whom are female, are required to live in dormitories provided by the college. Tuition, room, and health insurance costs are paid by the government. A student fee equivalent to about $12 per month is required for board and books.[12]

Upon graduation from western-type medical schools, students receive the degree of Bachelor of Medical Science. On the basis of medical school per-

Table. Healthcare in China

	1949	1979-1980	Mid toLate 1980s
Population	540 million	960 million	1 billion
Life Expectancy	32 years	66 years	69 years
Medical Colleges	22	117	118*
Traditional	0	24	23
Western	22	93	95
Physicians	598,000	609,608	1,828,000
Traditional	560,000	251,088	346,000
Western	38,000	358,520	1,482,000
Barefoot Doctors	0	1,600,000	1,200,000
Hospitals	2,600	64,421	60,000
Hospital Beds	80,000	1,856,391	2,487,000

Since complete information is difficult to obtain directly from China, data presented here are obtained from other sources.[1-4,8,10,12,17,18]

*Includes 4 military medical schools

formance and national examinations, graduates will follow one of three paths. Twenty percent of the graduates at each school will be selected for additional training. Of this 20 percent, some will enter a three-year program of course work and research leading to a Master of Medical Science after which they may enter a residency program to become a clinical instructor or continue their graduate work for a doctorate. The rest will enter three years of residency training leading to qualification in a medical specialty. The 80 percent not selected for additional training are assigned by the Ministry of Labor to clinics or small hospitals in the countryside.[12] Competition for additional training is keen!

Personal Observations Following Tiananmen

Apprehensions about how we as Americans might be received in China in October of 1989, so soon after the June 4 massacre at Tiananmen, were soon forgotten. We traveled safely and without restriction. Only in Beijing did we see armed soldiers and even there we were permitted to enter Tiananmen Square and visit the mausoleum of Mao Zedong.

Medical personnel at Guilin People's Hospital (Figure 1), Qi Bao Commune Hospital near Shanghai, Changzhou Women's Hospital, and the Changzhou Hospital of Traditional Chinese Medicine were cordial. Although our tours were brief, the general impression was of old buildings, crowded corridors, and furnishings of 1940 vintage. The one exception was a recently installed CT scanner in Guilin, the gift of a sister city in Japan.

At the Changzhou Women's Hospital, where more than 8,000 babies are delivered each year, we met with the Chief of Obstetrics. The government policy of one family, one child was instituted in 1980. Of the 80 percent of Chinese women who practice contraception, 40.7 percent use an IUD.[13] Dr. Yang estimated that at least twenty abortions are performed by his staff each day. As China's population reaches 1.11 billion, government pressure for strict population control continues.[14]

Dr. Yang reported that in Changzhou no analgesia or anesthesia is used during normal deliveries. A visit to the labor suite revealed six women laboring in total silence; a real tribute to Chinese stoicism! Spinal anesthesia is used for the 22 percent of deliveries accomplished by Cesarean section. Seventy percent of breech deliveries are by Cesarean. At this institution, there was no evidence of fetal monitoring or ultrasonography, although these procedures are used elsewhere in China.[13]

On several occasions we had the opportunity to observe traditional Chinese physicians using acupuncture, moxibustion (Figure 2), and cup suction for treatment of joint and muscle discomfort. Almost all the patients we talked to reported the treatments were beneficial. Our most vivid impression was the total lack of sterile techniques used for the application of acupuncture. Based on western experience, we were concerned about the potential for the spread of hepatitis and AIDS.[15] We inquired frequently about the use of acupuncture for anesthesia. In no institution we visited was acupuncture used as anesthesia for invasive surgery.



Figure 1. Ronald Peterson MD with Chief of Pediatrics (Center) and members of obstetrical staff, Guilin People's Hospital, 1989.



Figure 2. Needles topped with herbs have been inserted into the knee of this patient and will be ignited during moxibustion treatment.

Throughout our trip we wondered about the impact of the recent prodemocracy movement. "How has the student uprising affected your life?" we asked a zoology major on the campus in Nanjing. "As a result of student interrogation by security police, six students and two professors from my school have been dismissed," she responded. "They have been sent to the countryside. Examinations to qualify for graduate school have been cancelled for all of us. Only those with proper politics may apply. I will not be considered."

A first-year medical student showed us the tiny, unheated room she shares with five other students. "What do you plan to do after completing medical school?" we inquired. A long pause, wistful look - "The government will decide where I am needed." These and other private conversations gave us some insight into the insidious nature of the current political system.[16]

Conclusions

In examining the medical and political events of the last forty years in China, it seems clear that the availability and quality of medical care is inexorably tied to the political scene. The China experience offers to the world a model for implementation of a primary healthcare plan capable of increasing life expectancy through reduction of infectious, nutrition-related, and social diseases. Creativity in the development of educational systems for expanding the numbers of healthcare personnel also have wide application. China has proven that a government dedicated to accomplishment of these goals can succeed even when national financial resources are minimal.

Many of the changes taking place in the Chinese healthcare system today are the unintended consequences of economic reform. Reduced primary healthcare, declines in cooperative health insurance, and increased demand for higher-quality medical care offer a challenge to the government. The concept that increased production automatically brings improved healthcare must be viewed with caution. From China, we learn of the potential negative impact economic reform may have on a nation's medical system.

Finally, China has illustrated that political fanaticism in any form may have devastating effects on medicine and medical education. The lessons to be learned from the cultural revolution and the recent suppression of the prodemocracy movement are important.

During the next decade, developments in medical care in China are likely to occur in an atmosphere of considerable tension between those who wish to continue the emphasis on public health issues of the masses, and those who wish to invest in the skills and technology of modern medicine to provide more advanced personal medical care. Similar problems are faced by many nations. The world will be watching for the Chinese solution.

References

1. Cheng TO, Axelrod L, Leaf A. Medical education and practice in People's Republic of China. Ann Intern Med 1975;83:716-24.
2. Cheng TO. Medical education in modern China: An update. Ann Intern Med 1980; 92:702-704.
3. Nutter DO. Medical education in People's Republic of China. J Med Ed 1983;58:555-561.
4. Shipp JC. To serve the people: Medical education and care in the People's Republic of China. Ann Intern Med 1982;97:277-279.
5. Cheng TO. Barefoot Doctors. JAMA 1988;259(24):3561.
6. Cheng TO. Medicine in modern China. J Am Geriatr Soc 1973;21:289-313.
7. Dimond EG. Medical education and care in People's Republic of China. JAMA 1971;218:1552-1557.
8. Blendon RJ. Public health versus personal medical care - The dilemma of Post-Mao China. N Engl J Med 1981;304:981-983.
9. Cheng TO. Medicine and healthcare along the Silk Road in China. Am J Med 1985;78:3-8.
10. Hsiao WC. Transformation of healthcare in China. N Engl J Med 1984;310:932-936.
11. Ongley PA. Asian medical education. Academic Medicine 1989;64 (Suppl. 5):522-526.
12. Cooper JA, Lin Y. Medical education in People's Republic of China. J Med Ed 1987;62(4):287-304.
13. Medical progress in China: Recent advances in obstetrics and gynecology in China. Chin Med J 1989;102(6):407-410.
14. Zhu B. Population growth hits new highs, new worries. China Daily October 16,1989;9(NO. 2563):1.
15. Vittecoq D, Mettetal JF, Rouzioux C et al. Acute HIV infection after acupuncture treatments. N Engl J Med 1989;320:250-251.
16. Peterson CE. In China, hearing the echoes of Tiananmen. The Evening Sun December 1, 1989:A13.
17. Xu W, Wang S, Gao K. Medical progress in China: Health personnel resources and medical education reform in China. Chin Med J 1989;102(9):955-59.
18. Statistical Yearbook for Asia and the Pacific 1988; United Nations: Economic and Social Commission for Asia and the Pacific, Bangkok, Thailand.

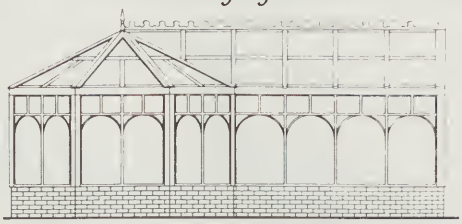
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Sigmoid Endometriotic Stricture Treated with Endoscopic Balloon Dilatation: Case Report and Literature Review

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Intestinal endometriosis causing a midsigmoid stricture can be successfully treated by endoscopic balloon dilatation.

Four to 20 percent of menstruating women harbor endometriosis.[1] Of these patients, 12 to 37 percent have involvement of the large intestine and 2 to 7 percent have involvement of the small bowel, usually distal.[2]

Balloon dilatation of gastrointestinal strictures has been successfully applied to the esophagus and, more recently, to the rectosigmoid.[3] The following is a case report of intestinal endometriosis resulting in a stricture of the rectosigmoid, ultimately treated with balloon dilatation. A discussion of intestinal endometriosis follows.

Case Report

A thirty-seven year old woman presented with a one-year history of progressive secondary dysmenorrhea and abdominal pain. The pain was postprandial, worse in the left lower quadrant, and associated with the urge to defecate. There was a decrease in the amount and caliber of her stool but no rectal bleeding was noted, nor was there any association between the abdominal pain and her menses. She had not used contraception since her only pregnancy eleven years previously. She had had no prior surgery, was not taking any medication, and had no allergies.

The physical exam was significant for tenderness and fullness in the left lower quadrant. The bowel sounds were normal. There was no organomegaly, and the pelvic exam was normal. The rectal exam was normal and stool was negative for occult blood.

The abdominal flat plate was normal. A barium study of the colon (Figure 1) demonstrated a persistent short segment of narrowing of the midsigmoid with some mucosal irregularity. An upper gastrointestinal series showed duodenal bulb spasm. A flexible sigmoidoscope was passed to the level of the midrectosigmoid where the lumen narrowed to a pinpoint. At that level, the mucosa was edematous, erythematous, and bled easily. Biopsy revealed chronic nonspecific colitis. Computed tomographic



Figure 1. Barium study of colon demonstrating short segment of midsigmoid narrowing with mucosal irregularity.

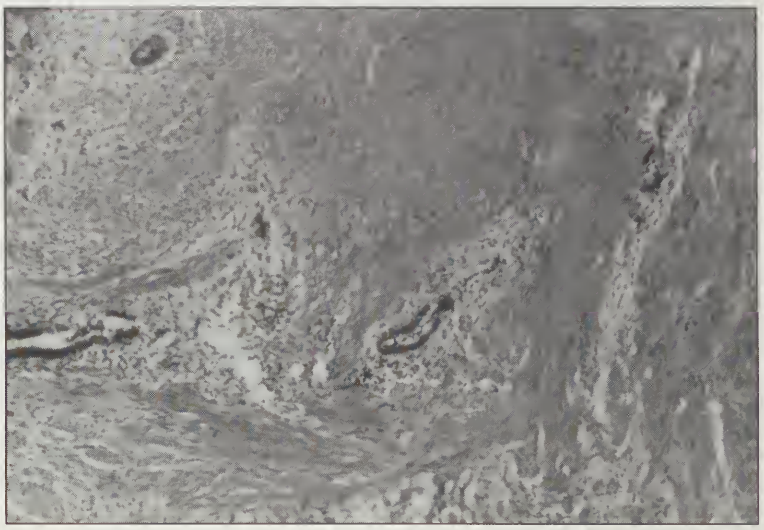


Figure 2. Specimen containing endometrial glands and stroma.

study of the abdomen and pelvis demonstrated retained barium from the previous upper gastrointestinal series in the descending colon. Contrast material introduced per rectum only filled to the distal rectosigmoid region. Bowel wall thickening was noted within this midsigmoid area. There was no extrinsic mass or lymphadenopathy.

Diagnostic laparoscopy showed the right ovary and tube to be bound down in a scarified inflammatory complex. The anterior wall of the sigmoid was densely adherent to the inferior posterior wall of the uterus. The rest of the pelvis and abdomen were normal.

The patient continued to lose weight and remained symptomatic, especially after meals. An exploratory laparotomy was undertaken to relieve the patient's suspected post-inflammatory adhesive disease. No bowel preparation was done. A right salpingo-oophorectomy was performed. Sharp dissection separated the dense adhesion between the distal sigmoid colon and the posterior uterine surface. A frozen section of the portion of the adhesion demonstrated fibromuscular tissue with endometrial-type glands. The wall of the sigmoid colon felt thick and of a rubbery consistency, constricting 80 percent of the sigmoid colonic lumen. A general surgical consultant felt that the stricture was so close to the peritoneal reflection that an attempt to perform an end-to-end anastomosis in an unprepared bowel might result in a colostomy. Pathological evaluation of the resected specimen confirmed endometrial-type glands and stroma (Figure 2).

Postoperatively, danazol, 800 mg a day, was prescribed but was not tolerated well. Persistent symptoms were treated with endoscopic balloon dilatation of the narrowed segment. The pinpoint stricture was noted at 18 cm and a 12 mm through-the-scope balloon dilator was passed and inflated to 50 pounds per square inch for six seconds. Then an 18 mm through-the-scope balloon dilator was passed and inflated to 35 pounds per square inch for six to eight seconds three times. The procedure was tolerated well. Eight months later, repeat sigmoidoscopy was performed easily. The danazol was tapered and stopped. To date (two and one-half years), the patient remains pain free and asymptomatic.

Discussion

Symptoms. Intestinal endometriosis presents in a protean and sometimes unexpected manner. Intestinal symptoms can be vague even with severe involvement; cyclic complaints coincident with the menses are the exception. The most frequent symptoms are diarrhea, constipation, infertility, dysmenorrhea, and lower quadrant abdominal pain, usually left sided (Table 1). In rare cases, the intestinal endometriosis patient presents initially with rectal bleeding, weight loss, or intestinal obstruction. Gross rectal bleeding is present only 20 percent of the time.[2]

Table 1. Summary of Representative Series with Percentage of Patients Presenting with Various Symptoms.

	Teunen[7]	Croom[13]	Forsgren[14]	Williams[9]
Diarrhea, Constipation	61	33	100	
Infertility	33			
Dysmenorrhea	33	47	33	52
Rectal Bleeding	28	6.6		
Cyclic Symptoms	28	40	33	17
Left Lower Quadrant Pain	22			
Menometrorrhagia	17		33	
Right Lower Quadrant Pain	11			
Intestinal Obstruction	6			
Renal Insufficiency	6			
Weight Loss		20		
Unspecified Abdominal Pain		93	67	
Dyspareunia				17

Partial or complete small bowel obstruction occurs in only 1 percent of cases. Nausea, vomiting, diarrhea, constipation, or abdominal pain may coincide with the menses but often do not. Appendiceal involvement is present in 13 percent of cases of pelvic endometriosis.[4] It is usually asymptomatic but can mimic acute appendicitis.

The triad of vague abdominal symptoms, progressive dysmenorrhea, and dyspareunia in a female of low parity should raise the suspicion of intestinal endometriosis.[5]

Physical Exam. The pelvic exam frequently shows an irregular tender fullness which is usually due to extensive adhesions between bowel loops and the pelvis. Palpation of the rectovaginal septum is usually painful and often reveals a mass. Classic uterosacral nodularity is found much less often. Needle aspiration diagnosis of the rectovaginal septum has been successful for pathologic confirmation.[6]

In cases of small bowel involvement, the physical exam is usually negative. Only 25 percent of cases have a nondescript painful right lower quadrant mass.

Screening for occult blood is probably not useful since occult blood has not been found without gross rectal bleeding.[7]

Radiology. A double contrast barium enema test is abnormal in over two-thirds of cases. Multiple abnormalities are associated with endometriosis: circumferential stenosis, rigidity of the bowel wall, extrinsic compression, extramucosal filling defect, and bowel obstruction. Differentiating endometriosis from carcinoma is difficult. The features that favor an extrinsic process such as endometriosis are a long, narrowed segment with smooth, tapered, conical margins rather than the short, abrupt, constricting "napkin-ring" type lesion typical for a neoplasm. Also, neoplasms cause mucosal destruction, whereas endometriosis leaves the mucosa intact (Table 2).

Abnormal radiologic studies may not be helpful in differentiating endometriosis from other diseases of the small bowel. Stenosis of the terminal ileum has been demonstrated, mimicking Crohn's disease. Endometriosis stiffens the serosa causing focal pleating of the mucosa and preventing normal distensibility.[8] These findings suggest an extrinsic disease process that may be detected on a small bowel series. Also, extrinsically affected bowel may be abruptly angulated and fixed.

Table 2. Comparative Features of Carcinoma and Endometriosis[2,13]

	Endometriosis	Carcinoma
Age	25 - 45 Years	40 - 60 years
Sex	Female	65% male
Weight Loss	None, or moderate	Marked
Constipation	Intermittent, Associated with menses	Progressive
Rectal Bleeding	Rare, if present then only with menses	Frequent
Fertility	Low parity	Average parity
Dysmenorrhea	Frequent and progressive	No relationship
Flexible Sigmoidoscopy	Intact mucosa, no bleeding	Gross ulceration with bleeding
Biopsy	Nonspecific	Positive
Barium Enema	Long filling defect, intact mucosa, tapered margins	Short filling defect, irregular mucosa, sharp margins

Anatomy. In patients with intestinal endometriosis, the lesions are distributed as follows: small intestine, 5 to 8 percent; cecum, 3.6 percent; appendix, 3 to 10 percent; rectovaginal septum, 13 percent; and the rectosigmoid, 72 to 95 percent.[9] Small intestinal involvement is usually ileal and involvement of the transverse colon is very rare. Intestinal endometriosis can be present without pelvic endometriosis.

Pathophysiology. The endometriotic implants start off within the serosa. Cyclic engorgement and hemorrhage incite a fibrous reaction and secondary muscular hypertrophy. These lesions progress to cause puckered scarring and eventual nodularity on the antimesenteric border of the bowel. Non-circumferential strictures can occur, and frozen section is often necessary to rule out neoplasm.

Differential Diagnosis. Colonic cancer needs to be ruled out, especially in the perimenopausal woman. Malignant transformation of the endometriotic implant occurs in less than 1 percent of cases,[10] with endometriosis of the rectovaginal septum having three times the rate of malignant transformation as other sites.[6] The true rate of malignant transformation may be higher, as carcinoma in its growth pattern may erase all evidence of having arisen from an endometriotic implant. Endometrial, clear cell, mucinous, and squamous neoplasms have all been reported to arise from endometriosis.

The characteristic features of colonic cancer are a painless mass with intermittent, noncyclic bleeding (Table 2). Other disorders within the differential diagnosis include inflammatory bowel disease, carcinoid tumor, diverticulosis, benign intramural tumors, metastases from an occult intra-abdominal malignancy, pelvic and mesenteric tumors or cysts, and irritable bowel syndrome.

Diagnostic Procedures. Flexible sigmoidoscopy does serve to exclude other diagnoses, particularly malignancy. In intestinal endometriosis, the lesions are extramural with normal overlying colonic mucosa.[11] Despite the normal mucosa, patients with intestinal endometriosis have eccentric compression, bowel wall fixation, and even severe concentric stenosis. The mucosa is more likely to be edematous, hyperemic, or have some mucosal bleeding points when the examination is performed at the time of the menses.

Colonoscopy has been used intraoperatively to clarify unexpected constricting lesions of the large bowel.[12] Endometriosis was suggested by the intact mucosa and extrinsic compression.

Diagnostic laparoscopy can raise the suspicion of intestinal endometriosis when pelvic disease is present.

Treatment. Treatment options include hormonal therapy, resection of the diseased segment, dissection

with release of the obstruction and now, balloon dilatation. Resection of the stenotic lesion is required one-half of the time. Some patients respond to dissection alone with resection of serosal implants.[13,14] Subsequent postoperative studies have demonstrated satisfactory luminal width. Surgical excision has been recommended[7,9,13] when the lumen is narrowed by one-half or more, whether the patient is symptomatic or not. Although minimal complications have been reported where bowel resection was undertaken in the unprepared bowel,[9] it is best to mechanically prepare the bowel in all cases of endometriosis requiring surgery.[15,16] Even resection of serosal implants is safer when the bowel is already prepared. Preoperative consultation between gynecologist and general surgeon is ideal.

Danazol therapy is not expected to be effective as it is unlikely to affect the fibrous tissue within the stenotic segment; yet success with danazol has been described in several case reports.[7] Treatment of small bowel involvement is surgical resection wherever there is gross luminal compromise. Also advised is routine appendectomy and routine evaluation of the distal small bowel, checking for the presence of Meckel's diverticulum which can harbor a focus of endometriosis.

Pathology. Pathologic findings are typical for endometriosis. Glands and stroma can be found in the serosal, muscular, and submucosal layers of the bowel wall, leaving the mucosa free of involvement. Often there is a prominent fibrous reaction.

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Conclusion

Intestinal endometriosis is not uncommon in menstruating women with endometriosis; it has even been reported in postmenopausal women.[17] The presentation often mimics other disease processes such as malignancy and appendicitis. Radiologic studies may help to suggest the presence of endometriosis. Surgical resection of the compromised bowel segment is usually necessary but may be avoided by the institution of balloon dilatation. Presented here is the first case of balloon dilatation performed for a rectosigmoid stricture secondary to intestinal endometriosis.

The statement of McGuff in 1948 is as true now as it was then: "The frequency with which the diagnosis of endometriosis is made by the clinician, the surgeon, or the pathologist varies with their threshold of suspicion and in many cases passes unrecognized."[17]

References

1. Ranney B. Etiology, prevention, and inhibition of endometriosis. Clin Obstet Gynecol 1980;12:875-83.
2. Macafee CHG, Greer HLH. Intestinal endometriosis: a report of 29 cases and a survey of the literature. J Obstet Gynecol (Br Commonw) 1960;67:539-55.
3. Brower RA, Freeman LD. Balloon catheter dilatation of rectal stricture. Gastrointest Endosc 1984;30:95-7.
4. Gindoff PR, Jewelewicz R. Ileal resection in the operative treatment of endometriosis. Obstet Gynecol 1987;69:511-2.
5. Haynes IG. Endometriosis causing large bowel obstruction. J R Coll Surg Edinb 1982;27:310-2.
6. Leiman G, Markowitz S, Veiga-Ferrerira MM, Margolius KA. Endometriosis of the rectovaginal septum; diagnosis by fine needle aspiration cytology. Acta Cytol 1986;30:313-6.
7. Teunen A, Ooms ECM, Tytgat GNJ. Endometriosis of the small and large bowel. Neth J Med 1982;25:142-50.
8. Kidd R, Freeny PC. Radiologic manifestations of extrinsic processes involving the bowel. Gastrointest Radiol 1982;7:21-8.
9. Williams TJ, Pratt JH. Endometriosis in 1,000 consecutive celiotomies: Incidence and management. Am J Obstet Gynecol 1977;129:245-50.
10. Case Records of the Massachusetts General Hospital (Case 5-1987). N Engl J Med 1987;361:261-8.
11. Meyers WC, Kelvin FM, Jones RS. Diagnosis and surgical treatment of colonic endometriosis. Arch Surg 1979;114:169-75.
12. Farinon AM, Vadora E. Endometriosis of the colon and rectum: An indication for perioperative colonoscopy. Endoscopy 1980;12:136-9.
13. Croom RD, Donovan ML, Schweisinger WH. Intestinal endometriosis. Am J Surg 1984;148:660-7.
14. Forsgren H, Lindhagen J, Melander S, Wagermark J. Colorectal endometriosis. Acta Chir Scand 1983;149:431-5.
15. Weed JC, Ray JE. Endometriosis of the bowel. Obstet Gynecol 1987;69:727-30.
16. Markham SM, Carpenter SE, Rock JA. Obstet Gynecol Clin North Am 1989;16:193-219.
17. Williams Jr. C. Endometriosis of the colon in elderly women. Ann Surg 1963;157:974-9.

Acknowledgments

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Amebic Liver Abscess: Review of Twenty-nine Cases with an Evaluation of Imaging Techniques

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On April 16, 1988, a Scientific Program was held at the University of Maryland Medical School and Hospital to honor John Murray Dennis MD on his retirement as Dean of the School of Medicine. This paper was part of an address presented on that date and is a fitting tribute to the long and illustrious career of a man who had such an impact on the field of radiology and on medicine in Maryland.

In amebic liver abscess, prompt diagnosis reduces morbidity and mortality. The use of specific imaging modalities markedly shortens the time required for diagnosis.

An estimated 480 million people or about 12 percent of the world population are infected with entamoeba histolytica.[1] Although the majority of these patients (80-99 percent) are totally asymptomatic, amebiasis causes an estimated 75,000 deaths per year and ranks third, behind malaria and schistosomiasis, as the cause of death by parasitic disease.

The cysts of entamoeba histolytica gain entry to the human intestinal tract in fecal-contaminated water or food. In the intestinal tract, the ameba may exist for long periods without causing symptoms.[2] In time, excystation releases eight trophozoites from each cyst. By adhering to the intestinal mucosa, the trophozoites release enzymes or toxic products to disrupt the intestinal barrier.[3] Hematogenous transport of the trophozoites to the liver via the portal vein follows. Trophozoites destroy the liver cells resulting in an amebic abscess. Only about 4 percent of patients with intestinal amebiasis develop liver abscess.[4] Rarely, abscesses develop in the lung, brain, or spleen.[5] Within the United States, patients in mental institutions, homosexual men, Indochinese refugees, Central American natives, migrant workers, travelers, immigrants, and immunosuppressed individuals show a higher incidence of amebic abscess.[6,7]

The detection of ameba in the stool or from aspirated pus requires technical skill.[4] Entamoeba histolytica must be differentiated from entamoeba coli and other nonpathogenic intestinal ameba. Heyneman detected cysts or trophozoites in the stool in only 12 percent of patients with liver abscess.[4] With extra-intestinal amebiasis, the indirect hemagglutination test (IHA) has greater reliability. An IHA titre greater than 1:64 is considered

positive.[8] It occurs in 87 to 100 percent of patients with liver abscess.[8] The titre falls progressively following successful treatment.

Material and Methods

In a twelve year period from 1976 to 1988, 29 patients with amebic hepatic abscess were admitted and treated at the Santa Clara Valley Medical Center. Retrospective analysis of the clinical presentations, methods of diagnosis, and results of treatment form the basis of this report. The average age of the patients was thirty-four with a range of seven to sixty-five years. A marked preponderance of males was encountered with a male to female ratio of 27:2.

None of the patients were native born and the majority were recent immigrants from an endemic area. Twenty-one came from Mexico, six from Southeast Asia, one from India, and one from the Philippines.

The abscess or abscesses involved only the right lobe in twenty-three patients. The abscesses developed in the left lobe in four patients and in both lobes in two patients.

Findings

Most patients showed signs of sepsis. In twenty-three, the main complaints were fever and chills. Twenty-one patients had abdominal pain and in eighteen this was localized to the right upper quadrant. Seven patients reported nausea and vomiting. Seven had diarrhea and in one patient it was bloody. Five patients, all of whom had a right lobe abscess adjacent to the diaphragm, had right chest and shoulder pain.

Imaging study showed the liver abscess in all patients. Ultrasonographic examination of twenty-eight patients was positive in twenty-six - a sensitivity of 93 percent (Figure 1).

Computed tomography (CT) demonstrated the abscess in all fourteen patients in which it was employed (Figure 2). Liver abscess was shown by nuclear medicine scan in four patients and by total body opacification with conventional tomography in three patients.

Needle aspiration of the abscess was carried out in nine patients. Typical brownish pus was aspirated in eight. The pathologist identified trophozoites in only two of the specimens.

Stools were examined for ova and parasites in twenty-five patients, and in only five (20 percent) were the cysts of entamoeba histolytica found. Other parasites incidentally recovered (each in a single patient) were Ascaris, Giardia, and hookworm.

The indirect hemagglutination test was performed in twenty-five patients. Twenty-four showed a positive titre which ranged from 1:128 to 1:4046.

A right pleural effusion developed in nine patients (31 percent), three of whom had a right lung infiltrate. A right lobe abscess was present in these patients and, presumably, the infection spread via lymphatics to the pleura and lung.

All patients were treated with metronidazole (Flagyl) 750 mg t.i.d. for ten days. In thirteen patients, this was supplemented by diiodohydroxyquin (iodoquinol) 650 mg t.i.d. for twenty days to eliminate ameba from the intestinal tract. All patients responded promptly, becoming afebrile and largely asymptomatic within three days; all recovered.

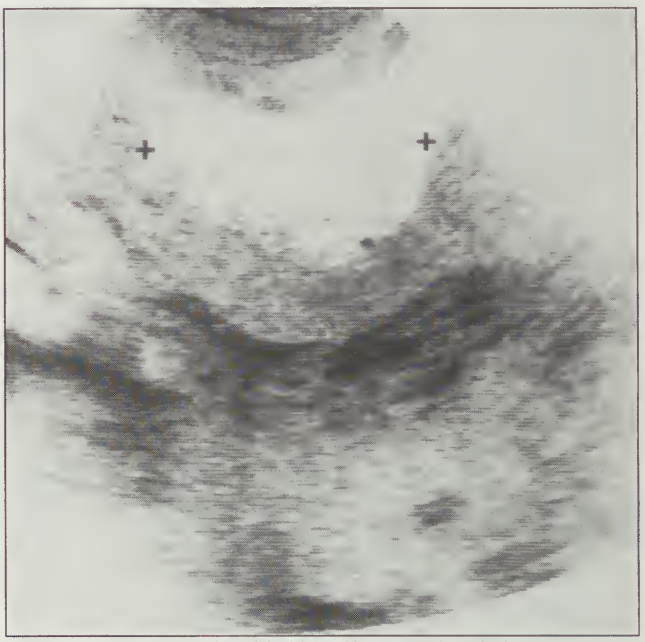


Figure 1. Amebic Liver Abscess - Left Lobe
Ultrasound demonstration. This patient complained of night sweats, a ten-pound weight loss and left upper quadrant pain. On liver ultrasonography, an 8 x 10 cm oval hypoechoic lesion is present in the left lobe (+-+). The abscess shows a poorly defined margin and irregular internal echoes, characteristic of an early stage.

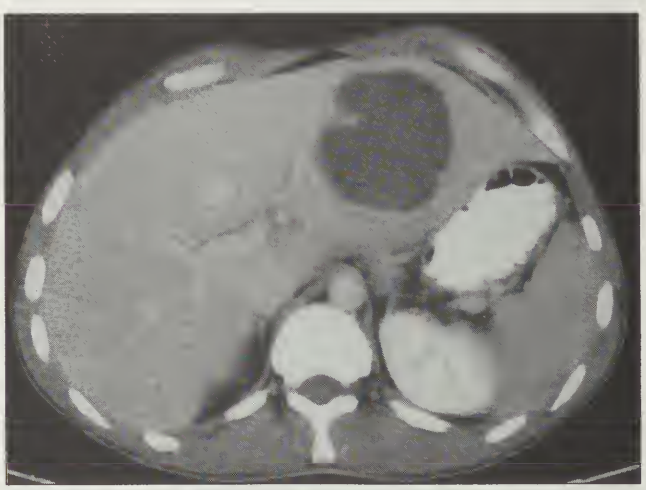


Figure 2. Contrast-enhanced computed tomographic examination of same patient. The oval low density abscess with irregular margins fills the left lobe. Mild enhancement of the rim indicates hyperemia. Indirect hemagglutination titre for amebiasis was 1:2048. With metronidazole treatment, the patient's symptoms regressed rapidly and he was discharged on the third hospital day.

Discussion

In amebic liver abscess, prompt diagnosis reduces morbidity and mortality. The use of specific imaging modalities markedly shortens the time required for diagnosis. Useful imaging techniques include nuclear medicine scan, total body opacification with tomography, cholescintigraphy, arteriography, ultrasonography, computed tomography, and magnetic resonance imaging (MRI). All of these techniques effectively demonstrate liver abscess.

Nuclear medicine scan using intravenously administered technetium 99m sulfur colloid was used initially.[9] The isotope is taken up by the reticuloendothelial system of the liver and spleen, and the abscess appears as a photopenic defect.[8] Gallium citrate scan has also been employed.[10] Nuclear medicine scanning requires a ready supply of the isotope and specialized equipment; it does not permit differentiation of an abscess from liver cyst or avascular tumor.

With technetium 99m dimethyl iminodiacetic acid (t. 99m HIDA), cholescintigraphy shows rim enhancement of hepatic amebic abscess.[11,12] This examination gives limited anatomic resolution.

Total body opacification with complex motion tomography requires a large intravenous contrast infusion.[9,13] An iodine allergy or concurrent renal disease contraindicate the examination. This technique shows only large abscesses.

Arteriography has had limited use in the study of liver abscess. Both amebic and pyogenic abscesses appear as an avascular area with a hyperemic rim. Injection of contrast is required, as is specialized equipment.

In recent years, ultrasonography has received wide use.[14-17] Ultrasound has the advantage of low cost, high sensitivity, the use of non-ionizing radiation, portability of equipment allowing the examination to be performed at the bedside, and prompt availability of results. At times, intestinal ileus may limit the examination and it is operator-dependent. Ultrasound does not distinguish between pyogenic and amebic abscess.[14,16]

Using ultrasonography, Berry et al followed the healing of an amebic liver abscess in eighteen patients.[14] At two to three weeks, the abscess had an echo-poor wall with heterogenous internal echoes. At eight to sixteen weeks, the abscess showed a thick echogenic wall. Complete healing occurred in three to six months.

CT was performed in fourteen patients and was positive in all (Figure 2). CT accurately differentiates a fluid-filled structure from a solid liver tumor. Its drawbacks are its greater expense and the use of ionizing radiation. CT can confirm the ultrasonographic findings and is most useful in detecting extrahepatic spread.[18]

MRI was not used in this series. T1 weighted images show the abscess as a heterogeneous low signal mass devoid of liver tissue.[19] The examination is lengthy and expensive. Rawls et al found no difference in the ability of MRI, ultrasound, or CT to demonstrate an amebic liver abscess.[20]

Abscess aspiration and drainage were carried out in nine patients. One aspiration was dry; eight yielded characteristic thick, brownish pus. From only two were the trophozoites recovered, the remaining six were sterile. Abscess aspiration and/or catheter drainages were found by Giorgio et al to reduce hospitalization and shorten the time required for abscess regression.[21] Since the symptoms of amebic hepatic abscesses respond rapidly to specific treatment, the need for percutaneous drainage has been questioned.[22] With treatment, the abscess will regress slowly over a period of three to six months.[14] Needle aspiration carries with it the hazard of superinfection or hemorrhage, although these complications are rare.[21]

Aspiration appears indicated when the diagnosis cannot be established by other means. Drainage would be needed when studies suggest present or impending perforation of the diaphragm, vena cava, or pericardium.[22]

After the abscess has been detected, the rapid deference of fever and relief of abdominal pain that follow a therapeutic trial of metronidazole help to establish the etiology. Clinical recovery may occur before serology studies are completed.

In this study, stool examination for encysted forms and trophozoites was positive in only five patients. This examination is time-consuming and requires an experienced technician. The indirect hemagglutination test (IHA) was positive in all but one patient and confirmed the diagnosis in patients whose stool examination was negative. Because it must be performed by a specialized laboratory, the results of the IHA examination may be delayed several days.

The most common and most dangerous extension of right lobe abscess is to the right diaphragm, pleura, and lung. In a study of 501 patients, Ibarra-Perez found that in 326, the abscess had ruptured through the diaphragm and this group of patients experienced a mortality of 11.4 percent.[23]

Summary

Twenty-nine patients with amebic liver abscess were reviewed retrospectively. In twenty-six of twenty-eight patients, ultrasonography demonstrated the abscess. An elevated indirect hemagglutination titre confirmed the diagnosis in twenty-seven of twenty-eight patients. All patients recovered with specific chemotherapy.

In evaluating clinically suspected amebic liver abscess, ultrasonography is a cost-effective, readily available, and reliable imaging method. If needed, computed tomography provides confirmation. Needle aspiration or catheter drainage have questionable value unless the diagnosis is in doubt or extrahepatic spread is present. The indirect hemagglutination test shows an elevated titre in most patients with liver infestation. By inducing a prompt recovery, antiamebic chemotherapy can confirm a suspected clinical diagnosis.

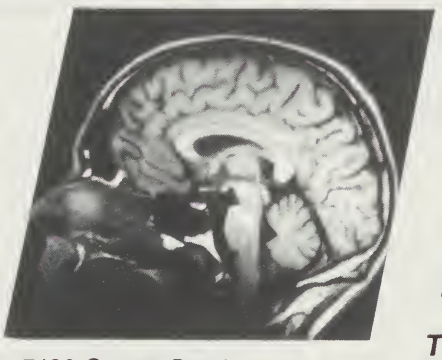
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References

1. Guerrant RI. Amebiasis: Introduction, current status and research questions. Rev Infect Dis 1986; 8:218-221.
2. Walsh JA. Problems in recognition and diagnosis of amebiasis: Estimation of global magnitude of morbidity and mortality. Rev Infect Dis 1986;8:228-238.
3. Ravdin JI. Pathogenesis of disease caused by entamoeba histolytica: Studies of adherence, secreted toxins and contact-dependent cytolysis. Rev Infect Dis 1986;8:247-260.
4. Jarvetz E, Melnick JL, Adelbery EA (eds.) Review of Medical Microbiology, 17th ed. Palo Alto, CA: Appleton and Lange, 1987.
5. Adams EB, MacLeod IN. Invasive amebiasis II amebic liver abscess and its complications. Medicine 1977;56:315-323.
6. Healy GR. Immunologic tools in the diagnosis of amebiasis: Epidemiology in the United States. Rev Infect Dis 1986;8:239-256.
7. Salata RA, Ravdin JL. Review of the human immune mechanism directed against entamoeba histolytica. Rev Infect Dis 1986;8:261-272.
8. Kagan IG. Serodiagnosis of parasitic disease. In Rose N, Friedman H, Fahey JL (eds.) Manual of Clinical Laboratory Immunology, 3rd ed. Washington, DC: American Society for Microbiology, 1986.
9. Morin ME, Baker DA, Marsan RE. Hepatic abscess: diagnosis in the adult by total body opacification. JAMA 1976;236:1607-1609.
10. Goldsmith RS. Amebic Liver abscess. West J Med 1980;132:337-339.
11. Remedios PA, Colletti PM, Ralls PW. Hepatic amebic abscess; cholecystographic rim enhancement. Radiology 1986;160:395.
12. Morris J, Cato J, Walker A et al. Liver scanning in the diagnosis and management of hepatic amebic abscess. Med J Aust 1969;2:1301-1303.
13. McCort J. Amebic hepatic abscess: demonstration by total body opacification and tomography. West J Med 1976;124:426-428.
14. Berry M, Bazaz R, Bhargava S. Amebic liver abscess: sonographic diagnosis and management. JCU 1986;14:239-242.
15. Landay MJ, Setiawan H, Hirsch G et al. Hepatic and thoracic amebiasis. AJR 1980;135:449-454.
16. Ralls PW, Barnes PF, Radin DR et al. Sonographic features of amebic and pyogenic liver abscess; a blinded comparison. AJR 1987;149:499-501.
17. Sukov RJ, Cohen LJ, Sample WF. Sonography of hepatic amebic abscesses. AJR 1980;134:911-915.
18. Radin DR, Ralls PW, Colletti PM et al. CT of amebic liver abscess. AJR 1988;150:1297-1301.
19. Elizondo G, Weissleder IR, Stark DD et al. Amebic liver abscess: diagnosis and treatment evaluation with MR imaging. Radiology 1987;165:795-800.
20. Ralls PW, Henley DS, Colletti PM et al. Amebic liver abscess: MR imaging. Radiology 1987;165:801-804.
21. Giorgio A, Amoroso P, Francica G et al. Echo-guided percutaneous puncture: A safe and valuable therapeutic tool for amebic liver abscess. Gastrointest Radiol 1988;13:336.
22. Ralls PW, Barnes PR, Johnson MB et al. Treatment of hepatic amebic abscess: rare the need for percutaneous drainage. Radiology 1987:165:805-807.
23. Ibarra-Perez C. Thoracic complications of amebic abscess of the liver. Chest 1981;79:672-677. ■

John Archer: First Medical Graduate of the New World

William H.M. Finney MD, FACS, MPH

Dr. Finney is a consultant to the General Accounting Office on Congressional Health Planning.

John Archer was the first person to receive a medical degree in the western hemisphere and was one of the founders of the Medical and Chirurgical Faculty of Maryland.

"...there shall never be lacking a succession of intelligent and skilled physicians who in their concern for health of mankind will have been a great credit to themselves and their country."[1]

These were the closing words of John Lawrence, valedictorian of the first graduating class from a medical school in America, June 21, 1768.[2]

John Archer (Figure 1), being alphabetically first in this pioneer class of ten, was the first to receive a medical degree in the western hemisphere. He went on to distinguish himself in the field of medicine and in service to this nation yet to be born.

Dr. Archer, born May 5, 1741 in Churchville, Harford County, Maryland, was educated at the local Nottingham Academy and Princeton University. He received his AB in 1760 and his AM in 1763. He then entered Princeton Theological Seminary to pursue a career in the Presbyterian ministry. However, his performance at his trial sermon for ordination was so poorly received that he abandoned this calling.[3]

Shortly thereafter, he apprenticed himself to Dr. John Morgan in Philadelphia; Dr. Morgan was a prominent physician who had been educated in Edinburgh. At that time, the first formal class in medicine was being formed at the Philadelphia College of Medicine. Archer enrolled at Dr. Morgan's urging.[4]

During the ensuing three years, the new student is said to have displayed extraordinary clinical judgment but only average academic performance. During the summer months, he supplemented his income by serving as a locum tenens physician in nearby New Castle, Delaware. Upon graduation (Figure 2), he declined Dr. Morgan's offer of a partnership and returned to his native Harford County. Here he practiced for the next forty years except for two significant interruptions - the Revolutionary War and his service in the United States Congress.

The founding of the Medical School in 1765 had been for-

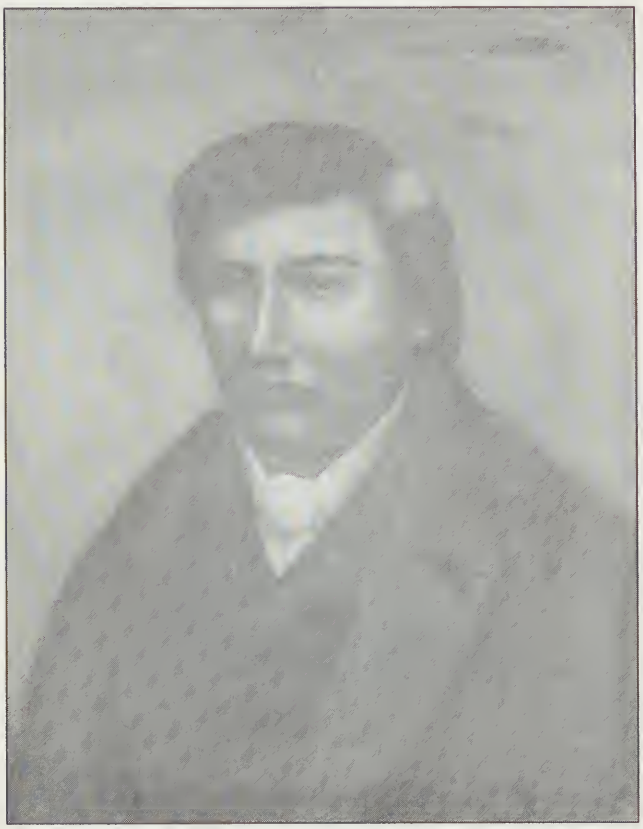


Figure 1. Dr. Archer's portrait hangs in the lobby of the Med Chi building.

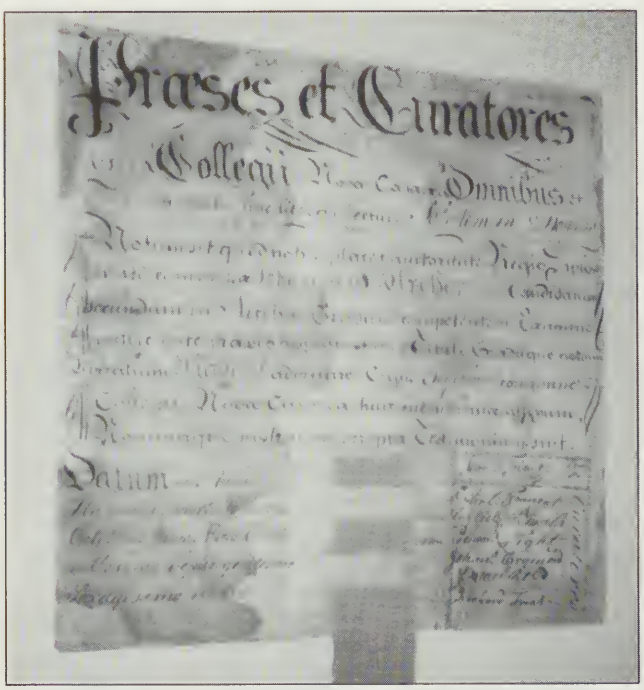


Figure 2. Dr. Archer's Diploma from the Philadelphia College of Medicine

tuitous for John Archer. Although the Stamp Act crisis created great disruption, its repeal in 1769 allowed for a rather misleading period of calm during the 1770s which fostered success for the young physician. By the time the war broke out, Archer and his classmates were seasoned clinicians. His graduating class, being sympathetic toward the revolutionary cause, formed the foundation of the Medical Corps of the Revolutionary Army. Three of the "ten men of '68" did not survive the conflict. Archer distinguished himself.

While in the military service, he attained the rank of Major and was commended by General Washington "for his outstanding surgical skill and compassion." Upon his mustering out of the army in 1779, General Washington again noted Major Archer's "zeal, activity and spirit which are conspicuous on every occasion."[5]

During his years in the military, Dr. Archer also served as a member of the Maryland Convention which framed the Maryland Constitution and the Bill of Rights.

In 1779, Archer returned to his home to resume his practice. He also began active teaching of young doctoral candidates in preceptorships. There were six to twelve students in residence at his home for the next fifteen years. At that time, a preceptorship was still an accepted course of education, in contrast to formal medical school. It was during these years that his home and four hundred and fifty acre estate became known as Medical Hall (Figure 3). On many occasions, the students were visited by guest lecturers: Dr. John Morgan, Archer's mentor; Dr. Benjamin Rush, Dr. Archer's classmate from his Princeton days; and on one occasion, Benjamin Franklin, who recounted his reflections on the French medical system.[6]

Five of Archer's six sons went on to the newly founded University of Pennsylvania Medical School, which took over the Medical College of Philadelphia in 1789. The sixth son became a Supreme Court Judge.

Subsequently, the Medical Hall Alumni organized a medical society before which they presented original papers. In 1799, Dr. Archer joined with these colleagues to found the Medical and Chirurgical Faculty of the State of Maryland.[7]

The management of difficult obstetrical problems and childhood croup brought great credit to Dr. Archer throughout the middle Atlantic States. On numerous occasions he was called from the floor of Congress to consult on difficult deliveries by prominent Washingtonians. During the winter months, he frequently hurried from the Capitol to attend a croupy child. One of his papers, published in the *Medical Repository of New York,* introduced Seneka Snakeroot as a decongestant for croup. The present synthetic base for one of the modern day decongestants is chemically similar to Seneka. Dr. Archer advised that "a steaming kettle of water be kept on the

stove, the humid vapors being an adjuvant to the Snakeroot." This, of course, is the forerunner of today's humidifier.[8]

Smallpox was a recurrent threat to those owning slaves. Vaccination, of course, had been known since 1798 and was widely practiced in the New World during the colonial period. Dr. Archer was probably a leader in promoting vaccination of slaves, not only as wise medical practice, but as an important economic protection. As a result of his work, it was thought that the vaccination program for slaves was economically more efficient than for the gentry.[9]

It is said that Archer's interest in obstetrics began when he attended what was perhaps the first recorded birth of Siamese twins in America. He describes it in a letter to his wife from Philadelphia in February 1767, while still a medical student: "...a monster in the shape of two negro children in one. They have two heads, four arms and four legs, distinctly formed; they are united from the shoulders to a little below the navels, and lie in each other's arms, and each having its arm under the other's head. This is a wonder of nature." The correspondence goes on to say, "...it was executed."[4,10] Whether or not euthanasic practices were common to the times is not known. Euthanasia is not a subject easily or frequently discussed in the literature, particularly in colonial puritanical writings.

The American Philosophical Society, a brain child of Benjamin Franklin, was founded in 1743 but floundered because of the disunity of the colonies.[6] It was revitalized in 1768 as the "American Philosophical Society Held at Philadelphia for Promoting Useful Knowledge." This became a successful and respected forum for new medical thought. Six of Archer's classmates were elected to membership over the ensuing years; Archer was not, despite the fact that he presented a paper there entitled "Dissertation on an Amphibious Animal Discovered in Baltimore County," accompanied by a stuffed skin of that animal. It is proffered that he was blackballed by Dr. Morgan for declining his offer of partnership several years before.

In 1802, Dr. Archer resumed his practice, following his return to Churchville from his service in the Congress. At times he attended patients at such a distance from home (Figure 4) that when a stranger inquired of Mrs. Archer if Dr. Archer lived there, she replied, "He has his laundry done here."[4]

In 1808, a stroke and rheumatism curtailed his practice. In September of 1810, a second stroke led to his death at home on September 28 (Figure 5). He was 69 years old; a long life for those days.

Many testimonials were forthcoming from the early States. A Dr. Mitchell of New York wrote: "He left the world full of years and honors. His life was fully devoted to the service of his fellow-creatures and to the glory of the great Redeemer."[3]

At his death, Dr. Archer bequeathed his estate to his five physician sons, granted freedom to his slaves, and left a prophecy that abolition of slavery would soon come to be, despite his inward realization that the southern economy was dependent on it.

John Archer's legacy can be measured in many ways; as a physician, militiaman, teacher, humanitarian, gentleman-farmer, statesman, and the patriarch of the New World physicians.[10]

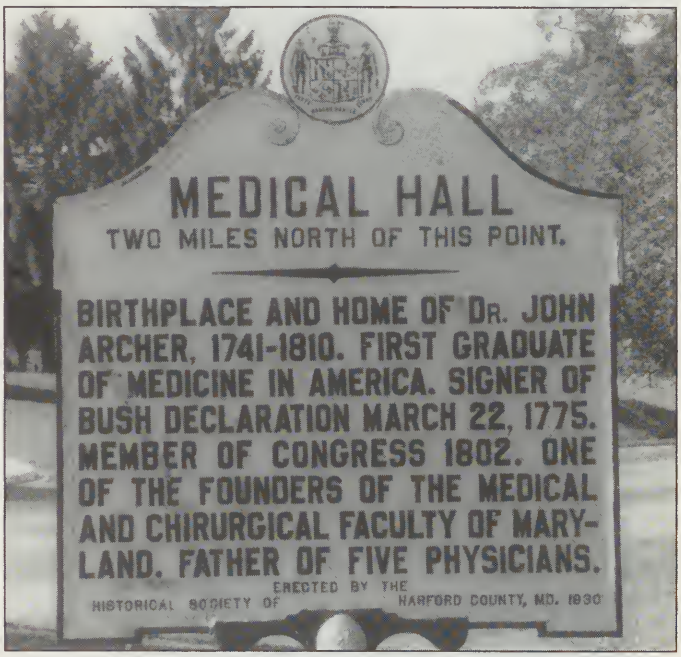


Figure 3. Maryland historical marker denoting the location of Medical Hall, birthplace and home of Dr. John Archer



Figure 4. Medical Hall, Dr. Archer's second home.

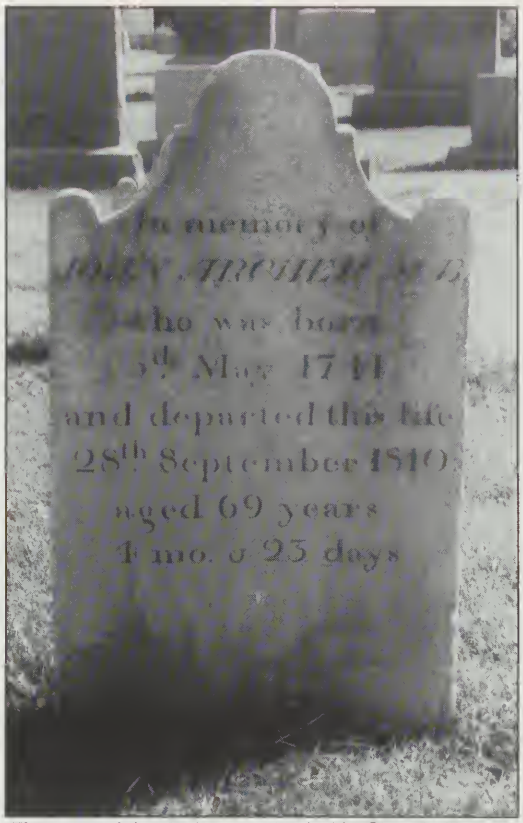
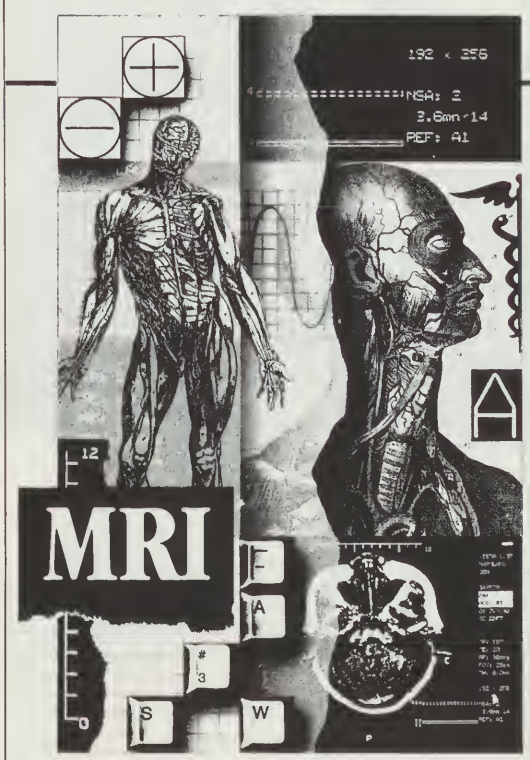


Figure 5. John Archer was buried in Churchville, MD

References

1. Transactions and studies of the College of Physicians of Philadelphia, Ser 4, 25. 1957-58:41-49.
2. John Archer MD. Post Grad Med 1964;36(2):A-86, port.
3. Biographical sketch of John Archer MD. The Johns Hopkins Hospital Bulletin 1898;X:141.
4. Archer notebook found in New York after 191 yrs. Philadelphia Inquirer: Maryland Historical Society. January 8, 1956.
5. Writings of George Washington. JC Fitzpatrick, ed. Washington, DC: US Government Printing Office, 1933-44;15:452.
6. Recollections as told to the author by his Grandfather, J.M.T. Finney MD; as told to him by his Grandfather, The Reverend William Finney, Dr. Archer's pastor.
7. John Archer, the first American graduate in medicine. Br Med J. 1900;2:452.
8. Science and society in early America: Essays in honor of Whitfield J. Bell, Jr. RS Klein, ed. American Philosophical Society, 1986.
9. Management of smallpox. Md Med J. November 1889.
10. A biographical sketch of John Archer by one of his descendants. The Johns Hopkins Hospital Bulletin, Nos. 101-102, August-September, 1899.

Physicians' Quality Assurance Board Actions appear regularly in MMJ.



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Council - September 14, 1990
385th Meeting

Committee on Professional Ethics - The Council reviewed and discussed the recommendation from the Professional Ethics Committee that Med Chi adopt a position regarding euthanasia. After extensive discussion, it was moved and adopted that the following be the policy statement on the issue of euthanasia:

> EUTHANASIA IS DERIVED FROM THE GREEK MEANING "GOOD" OR "EASY DEATH." EUTHANASIA IS THE ACT OR PRACTICE OF CAUSING THE DEATH OF PERSONS WHO ARE HOPELESSLY SICK OR INJURED, FOR REASONS OF MERCY. THE POSITION OF THE MEDICAL PROFESSION IS DERIVED FROM THE HIPPOCRATIC TRADITION WHICH PROHIBITS A PHYSICIAN FROM GIVING A DEADLY POTION TO A PATIENT, EVEN THOUGH ASKED TO DO SO. THE INTENTIONAL TERMINATION OF THE LIFE OF ONE HUMAN BEING BY ANOTHER IS CONTRARY TO MEDICAL TRADITION.
>
> THERE ARE SITUATIONS IN WHICH A PHYSICIAN MAY PERMIT A TERMINALLY ILL OR IRREVERSIBLY COMATOSE PATIENT TO DIE BY NOT INITIATING OR CONTINUING TREATMENT THAT PROLONGS THE DYING PROCESS. THIS SHOULD NOT BE TERMED EUTHANASIA.
>
> LIKEWISE, THE ADMINISTRATION OF A DRUG NECESSARY TO EASE THE PAIN OF A PATIENT WHO IS TERMINALLY ILL AND SUFFERING EXCRUCIATING PAIN MAY BE APPROPRIATE MEDICAL TREATMENT EVEN THOUGH THE EFFECT OF THE DRUG MAY SHORTEN LIFE.

Conjoint Task Force on Managed Care - The Council reviewed and adopted the "Guidelines for Appropriate Treatment and Transfer of Managed Care Plan (MCP) Subscribers" as follows:

1. The patient is ultimately responsible and indebted for any non-covered medical service rendered.
2. Most MCPs offer a type of indemnification for medical care requested outside the usual structure of the MCP. This is usually arranged prior to the request for such service. In cases where the gravity or seriousness of the situation demands immediate treatment, retrospective evaluation of the circumstances shall be the means to determine if such indemnification will take place.
3. The medical record is necessary for the efficient and timely evaluation of claims for compensation. The provider/facility shall provide a copy of the medical record along with the claim to the MCP.
4. It is in fairness to the MCP as well as the provider that a good faith effort be made to adjudicate a completed claim, accomplished by the medical record, within 90 days of receipt. There will be a good faith effort by the provider to submit completed claims within 90 days of the date of service.

Following the adoption of the committee's first recommendation, the Council approved the second recommendation which was to disband this task force with the full appreciation of the Council for a job well done.

Legislative Ad Hoc Committee - The Committee presented its resolution to the Council for discussion and approval:

> It is the recommendation of the Ad Hoc Committee on automobile no-fault insurance that Med Chi actively participate in the coalition to fight the implementation of a fee schedule for auto accident cases and that Med Chi's participation in this coalition be very narrowly directed to this issue alone. (The foregoing resolution was modified by Council action and is not the original submission of the committee.)

The Baltimore County Medical Association submitted the following resolution for consideration:

> *Resolved*, that the Medical and Chirurgical Faculty of Maryland through an Ad Hoc Committee consisting of the chairman or his or her designee from the Ethics, Legislative, Patient/Physician Relations, Peer Review, and Peer Review Management Committees, study the issue of no-fault insurance and the alleged abuses and report back to the Council by December 1990.

The following was submitted by the Baltimore City Medical Society as a substitute resolution:

> Inasmuch as physicians have no expertise in the area of automobile insurance, the Medical and Chirurgical Faculty has no position on the basic issue of no-fault auto insurance. Such a position does not preclude the Faculty from taking action on issues related to no-fault auto insurance such as medical definitions or physician fees which directly affect the practice of medicine. Therefore, the Legislative Committee is directed to keep abreast of any no-fault automobile legislation introduced and to make appropriate recommendations to the Executive Committee on issues in such legislation which affect the practice of medicine.

The Baltimore City Medical Society's substitute resolution was adopted in lieu of the Baltimore County Medical Association's resolution.

After further discussion, it was moved and adopted to refer the entire issue back to the Executive Committee for further deliberation and for the Executive Committee to report back to the Council at a later date.

PRO Monitoring Committee - The Council approved the following PRO Monitoring motion:

- The Council will continue to oppose office-based physician reviews.
- The Council will request that the Delmarva Foundation for Medical Care, Inc. expand its Board of Directors to allow physician representatives from all regions of the State. (Presently the board members represent only the Eastern Shore and District of Columbia with no representatives from any other regional areas.)
- The Council approved that the Faculty will distribute information concerning the sanction process to all component and specialty societies.

Liaison with the Medical Assistance Program - The Department of Health and Mental Hygiene has developed the Medical Assistance Open Enrollment Program to provide needed care to their beneficiaries. The Executive Committee reviewed and approved the distribution of the joint signature letter and explanation of the four page summary sheet, enclosed for the Council's review.

Medicolegal Committee - The Council reviewed and

approved for informational purposes the report on "Living Will and Durable Power of Attorney."

Committee on Public Health - The Council approved the recommendation that the Faculty adopt the AMA's position on preparticipation athletic examinations.

1. The development of consistent standards among schools for preparticipation athletic examinations.
2. Only licensed physicians perform preparticipation examinations.
3. The decision of whether or not an adolescent is healthy and physically mature enough to participate in a sport be made by a licensed physician.
4. The decision of when an injured adolescent resumes athletic participation be made by a licensed physician.
5. The guidelines established by the American Academy of Pediatrics, and included as an appendix to Board of Trustees Report R(A-90), be used to determine eligibility for sports participation.

The Council approved a correction to the wording by deleting the word "qualified" and replacing it with the word "licensed."

Physician Rehabilitation Program - Dr. Stanley Platman reported on the expansion of the Physician Rehabilitation Program. This program will be reviewed by the Finance Committee and implemented within the 1991 budget process. Next year's budget will be presented to the Council as required by the Bylaws.

Emeritus Membership - The following recommendations for Emeritus Membership in the Faculty were approved for submission to the House of Delegates for consideration:

Baltimore City
John M. Dennis MD, Baltimore
Robert A. Hoffenberg MD, Baltimore
Antonio K. Olmedo MD, Towson
Rawdon E. Rambo MD, Baltimore
Henry M. Seidel MD, Columbia

Baltimore County
Paul F. Guerin MD, Baltimore
Edmund Kasaitis MD, Baltimore
Fred N. Sugar MD, Lutherville

Carroll County
William L. Stewart MD, Gainesville, FL

Montgomery County
John S. Harrington MD, Silver Spring
E. Anne D. Mattern MD, Rockville
J. Peter Murphy MD, Bethesda

Wicomico County
William P. Sadler MD, Salisbury
Ollie H. Thompson MD, Salisbury

The follow physicians were approved by the Council for a waiver of dues:

Baltimore City
Joel M. Cherry MD, Baltimore

Baltimore County
Charles Smith Kertay MD, Pikesville

Harford County
Gunther D. Hirsch MD, Havre De Grace

St. Mary's County
G. Josephine Garner MD, Leonardtown

MIEMSS - Council Chairperson, Dr. Schneider reported on the request received from members of MIEMSS to help support the current program and autonomy of the Shock Trauma Center. The Faculty sent a letter to Governor Schaefer in support of retaining the MIEMSS as it is presently constituted.

CLIA 88 Update - Dr. Schneider updated the Council on the status of CLIA 88. A thirty day extension to the August 20, 1990 deadline for receiving comments was obtained from the Health Care Financing Administration (HCFA). The new public hearing closing date on the CLIA 88 regulations was September 21, 1990. All physicians were urged to visit the CLIA 88 exhibit booth area at the Semiannual Meeting and write to HCFA concerning how this program will impact on this partnership.

AMA Annual Meeting Update - Dr. Malouf, Chairman of the AMA Maryland Delegation, briefed the Council on the AMA's Annual meeting. The Delegate's Report was sent to the Council members for their review.

Practice Parameters - The Council adopted the Executive Committee's recommendation on practice parameters which is consistent with the AMA's policy.

> The Faculty supports the use of parameters that meet accepted principles as the foundation for developing and modifying quality assurance programs, to identify medical services which should be approved, and to identify services which require additional review. However, practice parameters should not be used as the only basis for quality, utilization, or payment decisions. In most circumstances, variations from parameters should constitute only a signal for further peer-to-peer consideration.
>
> The Faculty also supports research that will provide a better scientific basis for clinical management decisions. Well-conducted research, incorporated into effective practice parameters, should likewise improve both treatment decisions and quality assurance programs.

Medicare Physician Regulation Relief Amendments - Dr. Schneider updated the Council on Congressman J. Roy Rowland's 'Anti-Hassle' bill, HR 4475. Our Representatives were requested to co-sponsor the bill by calling Congressman Rowland's office at 202-225-6531 and asking for Kathy Hennemuth.

As of the Semiannual meeting, the following Maryland Representatives have signed on as co-sponsors: Roy P. Dyson, Constance P. Morella, Tom McMillen, Beverly B. Byron, Kweisi Mfume, Benjamin L. Cardin, and Helen Bentley. As of this meeting, Steny H. Hoyer is the only Representative who has not signed on as a co-sponsor. ■

Medical and Chirurgical Faculty of Maryland
Semiannual Session, House of Delegates (332nd Meeting)
Saturday, September 15, 1990
Carousel Hotel and Resort Center, Ocean City
Unapproved

The 332nd meeting of the the House of Delegates of the Medical and Chirurgical Faculty was held on Saturday, September 15, 1990 at the Carousel Hotel and Resort Center in Ocean City, MD. Officers present were Reynaldo Lee-Llacer MD, President; Harold B. Bob MD, Secretary; Jose M. Yosuico MD, Treasurer; and Marvin Schneider MD, Chairperson of the Council. (Also present, but not on the podium, were Gary Rosenberg MD, Vice-chairperson; Lawrence H. Fink MD, Treasurer-elect; and J. David Nagel MD, President-elect.)

The following delegates (or alternates) were registered as being in attendance; an asterisk (*) indicates an alternate delegate; (C) denotes Council member.

Allegany County
*Wally S. Hijab MD**

Anne Arundel County
*Cornelia M. Dettmer MD**

Baltimore City
Raymond M. Atkins MD (C)
Albert M. Antlitz MD (C)
Paul Burgan MD
*Augusto R. DeLeon MD**
K. G. Dritsas MD
Ronald H. Fishbein MD
Rafael C. Haciski MD
Gerald A. Hofkin MD
Thomas E. Hunt MD
*John B. MacGibbon MD**
Donald W. Mintzer MD
Samuel I. O'Mansky MD
Jose M. Yosuico MD (C)

Baltimore County
Thomas E. Allen MD (C)
Ruben F. Ballesteros MD
Albert L. Blumberg MD
Harold B. Bob MD (C)
Fernando A. Bohorquez MD
Louis C. Breschi MD (C)
Benjamin V. DelCarmen MD
Esther Edery MD (C)
John H. Hebb MD (C)
Deusdedit Jolbitado MD
John M. Krager MD
*Mehrdad Massumi MD**
J. David Nagel MD (C)

Calvert County
Modesto S. Rivero MD

Charles County
Khadar Baig MD
Guillermo Sanchez MD

Dorchester County
Lewis M. Burdette MD
Paul A. Stagg MD

Harford County
Rose Mary H. Bonsack MD
Ben Oteyza MD

Howard County
Thomas F. Herbert MD
Allan T. Leffler, II MD (C)

Montgomery County
Michael R. Dobridge MD (C)
Lawrence H. Fink MD (C)
Barton J. Gershen MD
Charles H. Ligon MD
Ralph E. Longway MD
Herman C. Maganzini MD
Marvin Schneider MD (C)
Mark S. Seigel MD
Peter B. Sherer MD
Margaret T. Snow MD
Joseph Snyder MD (C)

Prince George's County
Nelson G. Goodman MD
John E. Jeffrey MD
Zorayda M. Lee-Llacer MD
John R. Lilly MD (C)
George S. Malouf, Jr. MD
George S. Malouf, Sr. MD (C)
Abdul Nayeem MD
Frederick Wilhelm MD
*Michael F. York MD**

Queen Anne's County
John R. Smith MD

Washington County
Edward W. Ditto, III MD

Wicomico County
*Alex Azar MD**

Also present were Angelo J. Troisi FACHE, Executive Director, and other members of the Faculty staff.

Call to Order

The meeting was called to order at 1:10 p.m. by the President, Reynaldo Lee-Llacer MD.

Invocation

The Reverend Dr. John Zellner, Rector, St. Paul By-the-Sea Episcopal Church, Ocean City, delivered the invocation.

Pledge to the Flag

A videotape depicting the dramatic events that took place at the Battle of Fort McHenry as seen by Dr. William Beane, a Maryland physician, was shown and was followed by the Pledge of Allegiance.

Minutes of Previous Meeting

The minutes of the May 9, 1990 Annual Meeting were approved with the following members added to the attendance roster: Albert L. Blumberg MD, Esther Edery MD, John H. Hebb MD, Herman C. Maganzini MD, and Joseph Snyder MD.



Attendees at the Semiannual Meeting in Ocean City gained valuable knowledge while earning CME credits.

Health Care Financing Administration Presentation

Mr. Maurice Hartman, Regional Administrator, Region III, Health Care Financing Administration (HCFA), provided an overview of current HCFA issues of importance to physicians.

Certificates of Appreciation for their assistance in facilitating understanding of physician payment reform were awarded to: Mr. Maurice Hartman; Mr. Dennis Carroll, Chief, Policy and Technical Assistance Branch, HCFA; and Ms. Jean Gray, Physician Payment Reform Coordinator, HCFA.

Media Awards

Winners of the Fifth Annual Media Awards for excellence in medical journalism were announced. They will receive Certificates of Merit.

Daily Newspaper Category: Patrick Gilbert, "Mercy on Wheels," *Evening Sun.*

Non-Daily Newspaper Category: Lynne Salisbury, "One Day at a Time," *The Columbia Flier.*

Magazine and Newspaper Category: Larry Thompson, "The Ultimate Body Shop," *Warfield's.*

Radio and Television Category: John Stupak, "Just for the Health of It," Consultation Radio Network.

Maryland Medical Journal Award

The winner of the fourth annual award for the best article published in the *Maryland Medical Journal* was Gerald A. Glowacki MD for his article, "Estrogen Replacement Therapy: Risk/Benefit Ratio for Treatment," which appeared in the July 1989 issue.

Dr. Glowacki was presented with a plaque for his winning article, copies of which were made available to the membership at the meeting.

Emeritus Membership

On motion of Dr. Marvin Schneider, Council Chairperson, the following members, having received the recommendation of their component societies, were elected to Emeritus Membership:

Baltimore City
John M. Dennis MD, Baltimore
Robert A. Hoffenberg MD, Baltimore
Antonio K. Olmedo MD, Towson
Rawdon E. Rambo MD, Baltimore
Henry M. Seidel MD, Columbia

Baltimore County
Paul F. Guerin MD, Baltimore
Edmund Kasaitis MD, Baltimore
Fred N. Sugar MD, Lutherville

Carroll County
William L. Stewart MD, Gainesville, FL

Montgomery County
John S. Harrington MD, Silver Spring
E. Anne D. Mattern MD, Rockville
J. Peter Murphy MD, Bethesda

Wicomico County
William P. Sadler MD, Salisbury
Ollie H. Thompson MD, Salisbury

Council Chairperson Report

Marvin Schneider MD, Chairperson of the Council, presented an update of subjects discussed at the Coun-

cil meeting on September 14, 1990. Topics included CLIA 88 Laboratory Regulations, the MAC program, a summary of the Maryland Laboratory Regulations, Med Chi's position on euthanasia, the no-fault insurance issue (which was referred back to the Executive Committee), Med Chi's position that the MIEMMS organization should remain autonomous, Med Chi's position on the pre-exams for youth participating in school athletics, the AMA's practice parameter policies, and presentation of the Physician Rehabilitation Program.

Treasurer's Report

Jose M. Yosuico MD, Treasurer, presented the auditor's certification statement for 1989. It was moved and passed that the auditor's report need not be read. The certification of accountants was approved as published in the August 1990 *Maryland Medical Journal.*

1989-1990 Committee Reports

The 1989-1990 committee reports were not presented but accepted as published in the August 1990 *Maryland Medical Journal* since any recommendations or resolutions contained in those reports were reported on at the annual session in May. An opportunity was afforded the membership to raise questions or make comments.

Report of the Delegates to the American Medical Association Albert M. Antlitz MD, Roland T. Smoot MD, Donald T. Lewers MD, George S. Malouf MD, John Hebb MD, and Michael R. Dobridge MD (Interim Meeting, December 3-6, 1989)

Committee on AIDS Donald M. Pachuta MD, Chairperson and John C. Downs MD, Chairperson

Committee on Alcoholism and Chemical Dependency Franklin T. Evans MD, Chairperson

Bylaws Committee Karl H. Weaver MD, Chairperson

Computers in Medicine Committee Rafael C. Haciski MD, Chairperson

Committee on Continuing Medical Education Review Eugene P. Libre MD, Chairperson

Committee on Drugs Nelson G. Goodman MD, Chairperson

Committee on Emergency Medical Services Peter M. Fahrney MD , Chairperson

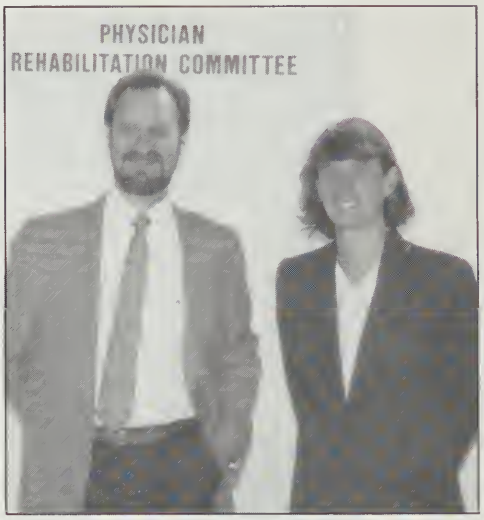
Finance Committee Jose M. Yosuico MD, Chairperson

Committee on Hospital Medical Staffs Victor R. Hrehorovich MD, Chairperson

Legislative Committee Susan R. Guarnieri MD, Chairperson

Liaison Committee with the Medical Assistance Program Gary R. Rosenberg MD, Chairperson

Library and History Committee Nancy T. Nichols MD, Chairperson



Director of Physician Rehabilitation, Mike Llufrio, and Public Relations Director, Betsy Newman, were on hand at the Med Chi booths to answer inquiries and aid members.

Long-Term Care and Geriatrics George Taler MD, Chairperson

Managed Care and Third-Party Liaison Committee Aristides C. Alevizatos MD, Chairperson

Maryland Medical Journal Victor R. Hrehorovich MD, Editor and Henry P. Laughlin MD, ScD, ScSD, Associate Editor

Med Chi Insurance Fund Albert M. Antilitz MD, Chairperson

Medicine and Religion Committee Leslie R. Miles, Jr. MD, Chairperson

Medicolegal Committee George H. Greenstein MD, Co-chairperson and Augustus F. Brown, VI Esq., Co-Chairperson

Committee on Mental Health Kenneth L. Malinow MD, Chairperson

Music Medicine Clearinghouse Advisory Board Christian S. Mass MD, Acting Chairperson

Occupational Health Committee Michael K. Spodak MD, Chairperson

Peer Review Committee Pablo E. Dibos MD, Chairperson

Peer Review Management Committee Christopher M. Harvey MD, Chairperson and Ronald J. Cohen MD, Vice-chairperson

Physician/Patient Relations Committee Lois E. Wehren MD, Chairperson and B. Martin Middleton MD, Vice-chairperson

Policy and Planning Committee Albert M. Antlitz MD, Chairperson

Committee on Professional Ethics Louis C. Breschi MD, Chairperson

Professional Review Organization Monitoring Committee John A. Singer MD, Chairperson

Public Health Committee Herman C. Maganzini MD, Chairperson

Public Relations Committee William A. Cassidy MD, Chairperson

Scientific Activity Committee Jack M. Zimmerman MD, Chairperson

Committee on Small Area Practice Variation Peter E. Dans MD, Chairperson

Committee on Specialist Identification Joseph I. Berman MD, Chairperson

Specialty Societies Committee Louis C. Breschi MD, Chairperson

Women in Medicine Ad Hoc Committee Margaret T. Snow MD, Chairperson

Commiteee on Young Physicians Susan W. Owens MD, Chairperson

Maryland Foundation for Health Care Election

During this election, three members were to be elected from Baltimore City, two members from Baltimore County, one member from Montgomery County, two members from Prince George's County, one member from the Eastern Shore, and one member from Western Maryland.

Since no nominations were received for Baltimore City, Baltimore County, the Eastern Shore or Western Maryland as of the closing date of August 6, 1990, the Chairperson asked for nominations from the floor:

Baltimore City
Raymond M. Atkins MD, GS
James E. Bell MD, R
Hiroshi Nakazawa MD, GS

Baltimore County
Esther Edery MD, PD
Adam F. P. Szczypinski MD, GP

Eastern Shore
There were no nominations. The position will be filled by action of the Foundation's Board of Directors.

Western Maryland
There were no nominations. The position will be filled by action of the Foundation's Board of Directors.

The Secretary read the following list of nominations:

Montgomery County
James A. Rossi MD, IM

Prince George's County
Suresh G. Gupta MD, IM
Frederick H. Wilhelm MD, FP

There being no contest for any position for which there were nominations, the candidates were declared elected by acclamation.

Bylaws Committee

The President advised the members of the House that the "consent calendar" procedure would be used for the report of the Bylaws Committee. Following a review of the issues of the report by Kevin N. Hennessey MD, Chairperson of the Bylaws Committee, Items 1 through 4 were extracted for discussion.

After discussion, it was decided to adopt the bylaw amendments, Items 1, 2, 3, and 4 with the word "select" changed to "appoint" wherever it appears. Item 1 establishes a Music Medicine Clearinghouse Committee. It was noted that changing this from an ad hoc committee to a standing committee would have no fiscal impact. The membership moved to waive reading of Item 5 and this was seconded and passed.

Dr. Hennessey, on behalf of the Bylaws Committee, moved adoption of the bylaw amendments, **Items 1, 2, 3, 4, and 5** of the report, which were **adopted unanimously** as follows:

1. Proposed Bylaw Amendment to the Ad Hoc Music Medicine Clearinghouse Committee

Rationale: To change the status of the Ad Hoc Music Medicine Clearinghouse Committee to make it a standing committee of the Faculty.

Amend Article XI (Committees), by adding a new Section 40:

> Section 40. A Music Medicine Clearinghouse Committee of at least five members shall be appointed annually by the president to collect, organize, and disseminate information relating to the medical problems of musicians. The goal is to acquire original copies of books, journal articles, and other published materials in all languages, encompassing both traditional medical viewpoints and various alternative therapies. The collection will include items of rare or historical importance as well as archival materials. Clearinghouse information will be stored and organized so that it is available and useful to physicians, other healthcare professionals, musicians, educators, and researchers. Materials will be made available as widely as possible.

2. Proposed Bylaw Amendment to the Committee on Drugs, Article XI, Section 7

Rationale: To establish staggered terms of office for appointed members of the committee.

Amend Article XI (Committees), Section 7, following the words "A Committee on Drugs" and before the words "of at least five members" by inserting the words "shall consist"; and following the words "of at least five members" and before the words "shall be responsible" by inserting the words "who shall serve on a three-year staggered term basis. The president shall select one-third of its members each year for a three-year term. The president will also appoint the chairman. The committee"; and by deleting the words "Its chairman and members shall be appointed annually by the President."

3. Proposed Bylaw Amendment to Physician/Patient Relations Committee, Article XI, Section 25

Rationale: To establish staggered terms of office for appointed members of the committee.

Amend Article XI (Committees), Section 25, following the words "A Physician/Patient Relations Committee"

and before the words "composed of at least nine members" by inserting the words "shall be"; and following the words "of at least nine members" and before "shall hear and determine" by inserting the words "who shall serve on a three-year staggered term basis. The president shall select one-third of its members each year for a three-year term. The president will also appoint the chairman. The committee"; and by deleting the words "The chairman shall be appointed by the President."

4. Proposed Bylaw Amendment to the Peer Review Management Committee, Article XI, Section 24

Rationale: To establish staggered terms of office for appointed members of the committee.

Amend Article XI (Committees), Section 24, following the words "shall consist of not less than nine members" and before the words "and be selected from nominees" by inserting the words "who shall serve on a three-year staggered basis"; and by deleting the words "The chairman and members shall be appointed by the president"; and following the words "Appointments shall be based on the nominees' experience on the medical review committee" and before the words "The Chairman or his designee" by inserting the words "the president shall select one-third of its members each year for a three-year term. The president will also appoint the chairman."

5. Proposed Bylaw Amendment to the House of Delegates, Article VI, Section 2

Rationale: To delete for clarification of language.

Amend Article VI (House of Delegates), Section 2, by deleting the words "of the Council."

(The full Bylaws Committee Report appears on p.1101)

Review of Policy Resolutions

Resolutions adopted in 1985 were reviewed as follows:

Resolution 1A/85 (a) - Filed, NO ACTION

Resolved, That the Medical and Chirurgical Faculty of Maryland strongly recommends to the Maryland Foundation for Health Care that it restudy criteria established in the professional review organization contract, in association with the specialty societies of Maryland, within the next ninety days and revise any and all criteria found to have a potentially adverse effect on the quality of medical care rendered patients in Maryland.

Resolution 1A/85(b) - Filed, NO ACTION

Resolved, That the Medical and Chirurgical Faculty, representing the physicians of Maryland, rejects as arbitrary and inappropriate the Maryland Foundation for Health Care document containing a list of surgical procedures and diagnoses or symptoms for which inpatient hospital care is denied; and be it further...

Resolution 1A/85(c) - REAFFIRMED

Resolved, That the Medical Chirurgical Faculty, concerned that the quality of medical care not be sacrificed in the name of cost containment, urges that any future such restrictive policies be disseminated and implemented only after adequate consultation with appropriate specialty societies and groups.

Resolution 2A/85(a) - REAFFIRMED

Resolved, That a major activity of the Faculty is to promote a positive relationship between the patient and the physician and to that end, be it further...

Resolution 2A/85(b) - REAFFIRMED

Resolved, That the Public Relations Committee be instructed to develop and direct an effort toward improving and maintaining positive relationships between individual patients and their physicians and to coordinate the activities of local medical societies in this endeavor.

Rose Mary H. Bonsack MD Legislative Campaign Fund

Rose Mary H. Bonsack MD, who is running for a legislative seat from Harford County, thanked the members who contributed to her campaign. She said that her campaign funds were depleted and made a plea for campaign contributions to put "a Doctor in the House." Campaign contributions can be sent directly to Med Chi to forward to Dr. Bonsack.

Drug Abuse Seminar

George S. Malouf MD reminded the membership that a drug abuse seminar, sponsored by the Physician Rehabilitation Committee, would be held October 20-21 at the Convention Center and that Med Chi had decided to waive the registration fee. He spoke to the membership about the importance of their attendance at this seminar.

Nominations Reopened

Edward W. Ditto III MD, Washington County, asked that the nominations for the Maryland Foundation for Health Care be reopened. This motion was seconded and passed. He nominated *Charles C. Spencer MD,* IM from Washington County for the vacancy from the Western District. The nomination was seconded and passed by membership. Dr. Spencer will fill the vacancy for Western Maryland on the Maryland Foundation Board.

Adjournment

There being no further business, the meeting was adjourned at 2:45 p.m.

HAROLD B. BOB MD, Secretary ■

Bylaws Committee

The Bylaws Committee recommends the following bylaw amendments to the House of Delegates for its consideration:

1. Proposed Bylaw Amendment to the Ad Hoc Music Medicine Clearinghouse Committee

Rationale: To change the status of the Ad Hoc Music Medicine Clearinghouse Committee to make it a standing committee of the Faculty.

Amend, By Addition, Article XI, Section 40, as follows: [ ] indicates deletion; CAPS indicate change.

SECTION 40. A MUSIC MEDICINE CLEARINGHOUSE COMMITTEE OF AT LEAST FIVE MEMBERS SHALL BE APPOINTED ANNUALLY BY THE PRESIDENT TO COLLECT, ORGANIZE, AND DISSEMINATE INFORMATION RELATING TO THE MEDICAL PROBLEMS OF MUSICIANS. THE GOAL IS TO ACQUIRE ORIGINAL COPIES OF BOOKS, JOURNAL ARTICLES, AND OTHER PUBLISHED MATERIALS IN ALL LANGUAGES, ENCOMPASSING BOTH TRADITIONAL MEDICAL VIEWPOINTS AND VARIOUS ALTERNATIVE THERAPIES. THE COLLECTION WILL INCLUDE ITEMS OF RARE OR HISTORICAL IMPORTANCE AS WELL AS ARCHIVAL MATERIALS. CLEARINGHOUSE INFORMATION WILL BE STORED AND ORGANIZED SO THAT IT IS AVAILABLE AND USEFUL TO PHYSICIANS, OTHER HEALTHCARE PROFESSIONALS, MUSICIANS, EDUCATORS, AND RESEARCHERS. MATERIALS WILL BE MADE AVAILABLE AS WIDELY AS POSSIBLE.

The Bylaws Committee recommends adoption of this proposed amendment.

2. Proposed Bylaw Amendment to the Committee on Drugs, Article XI, Section 7

Rationale: To establish staggered terms of office for appointed members of the committee.

Amend Article XI, Section 7, as follows: [ ] indicates deletion; CAPS indicate change.

Section 7. A Committee on Drugs SHALL CONSIST of at least five members WHO SHALL SERVE ON A THREE-YEAR STAGGERED TERM BASIS. THE PRESIDENT SHALL APPOINT ONE-THIRD OF ITS MEMBERS EACH YEAR FOR A THREE-YEAR TERM. THE PRESIDENT WILL ALSO APPOINT THE CHAIRMAN. THE COMMITTEE shall be responsible for evaluating the appropriateness of prescribing controlled dangerous drugs and shall work closely with appropriate governmental authorities in controlling the abuse of controlled dangerous substances by physicians and be alert to legislative and regulatory proposals regarding prescription drugs, standing ready to provide expertise in this area to such agencies or groups as request it; may provide educational material in the form of lectures and other didactic information on the current knowledge concerning prescribing controlled substances; may provide support and advice to the Department of Health and Mental Hygiene to urge that there are adequate facilities available 24 hours a day to treat all of the victims, both professional and otherwise, of drug abuse and its complications. [Its chairman and members shall be appointed annually by the President.]

The Bylaws Committee recommends adoption of this proposed amendment.

3. Proposed Bylaw Amendment to Physician/Patient Relations Committee, Article XI, Section 25

Rationale: To establish staggered terms of office for appointed members of the committee.

Amend Article XI, Section 25 as shown below: [ ] indicates deletion; CAPS indicate change.

Section 25. A Physician/Patient Relations Committee SHALL BE composed of at least nine members WHO SHALL SERVE ON A THREE YEAR STAGGERED TERM BASIS. THE PRESIDENT SHALL APPOINT ONE-THIRD OF ITS MEMBERS EACH YEAR FOR A THREE-YEAR TERM. THE PRESIDENT WILL ALSO APPOINT THE CHAIRMAN. THE COMMITTEE shall hear and determine all grievances or complaints growing out of the practice of medicine as provided by these bylaws and mediate all problems involving or growing out of the practice of medicine. [The chairman shall be appointed by the President.]

The Bylaws Committee recommends adoption of this proposed amendment.

4. Proposed Bylaw Amendment to the Peer Review Management Committee, Article XI, Section 24

Rationale: To establish staggered terms of office for appointed members of the committee.

Amend Article XI, Section 24, Peer Review Management Committee, as follows: [ ] indicates deletion; CAPS indicate change.

Section 24. A Peer Review Management Committee (PRMC) shall consist of not less than nine members WHO SHALL SERVE ON A THREE-YEAR STAGGERED TERM BASIS and be selected from nominees submitted by component societies. Appointments shall be based on the nominees' experience on the medical review committee. [The chairman and members shall be appointed by the President.] THE PRESIDENT SHALL APPOINT ONE-THIRD OF ITS MEMBERS EACH YEAR FOR A THREE-YEAR TERM. THE PRESIDENT WILL ALSO APPOINT THE CHAIRMAN. The Chairman or his designee may serve in an ex-officio capacity on the Board of Physician Quality Assurance. It shall be the duty of the committee to receive and record cases referred by the Board of Physician Quality Assurance; to identify the guidelines to be used in conducting reviews; refer cases to the appropriate Med Chi committee, component, specialty society or regional committee; to monitor the status of each case; to review reports received from investigating committees to determine adequacy of the review and the report and either transmit the report to the Board of Physician Quality Assurance or return it to the investigating committee with any inadequacies specified. Further, it shall be the duty of this committee to provide educational programs throughout Maryland to emphasize the elements of peer review; to provide organizational assistance to any review committee in Maryland; and to gather, analyze, and report statistical information annually for use by the Board of Physician Quality Assurance, Med Chi, and component societies in evaluating and upgrading the peer review process.

The Bylaws Committee recommends adoption of this proposed amendment.

5. Proposed Bylaw Amendment to the House of Delegates, Article VI, Section 2

Rationale: To delete for clarification of language.

Amend Article VI, Section 2 as shown below: [ ] indicates deletion.

> Section 2. Regular meetings of the House of Delegates shall be held during the annual and semiannual sessions. At the annual session it shall meet on the opening day and at any session it may adjourn to meet from time to time as it may deem necessary, provided that its meetings shall conflict as little as possible with General Meetings. Special sessions may be called by the President [of the Council] and shall be called on the written request of 50 Delegates.

The Bylaws Committee recommends adoption of this proposed bylaw amendment.

This concludes the report of the Bylaws Committee.

Kevin N. Hennessey MD, Chairperson, Prince George's County
Emidio A. Bianco MD, Baltimore City
Henry P. Laughlin MD, Frederick County
Ben Oteyza MD, Harford County
Karl H. Weaver MD, Baltimore City
Cheryl E. Winchell MD, Montgomery County ■



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In the Matter of Jeffrey H. Schimandle MD Before the Maryland Board of Physician Quality Assurance

Findings of Fact, Conclusions of Law, and Order

On February 27, 1989, Jeffrey H. Schimandle MD (the Respondent), signed a Consent Order with the Board of Physician Quality Assurance (the Board), in which Respondent's registration to practice medicine in a postgraduate training program in the State of Maryland was reinstated subject to certain conditions of probation. On May 23, 1990, the Board charged Respondent with violation of Condition of Probation #3 of the Consent Order. Specifically, Condition #3 provided as follows:

> For a period of one year beginning on the date that this Consent Order is executed, Respondent shall provide random supervised urine samples for forensic screening including meperidine and normeperidine, at a minimum of three times per week.[1] For a period of one year thereafter, Respondent shall provide random supervised urine samples for forensic screening for meperidine and normeperidine at a rate per week to be established by the Board hereafter. During the period of time after this Consent Order is executed, but before Respondent returns to work as a resident physician, Respondent will provide urine samples for screening by contacting the Resource Center by telephone as instructed by Dr. Whitfield. Once Respondent resumes work as a Resident physician, he will provide the minimum of three urine samples per week based upon a protocol to be established by the Board. This protocol will require Respondent to be available by beeper to respond to calls made to him to provide urine samples and will further require that Respondent will provide a urine sample within two hours of the time that Respondent is notified and a request for a urine sample is made. All urine samples will be strictly supervised by a person or persons hereafter named by the Board to serve that function and all urine samples will be submitted to the supervising person or persons without Respondent having any contact with the sample once given.

Respondent signed a House Staff agreement with University Maryland Medical System (UMMS) on July 1, 1989, and returned as a resident. On July 27, 1989, the Board served Respondent with a copy of the protocol for urine sample collection to which the Consent Order referred in Condition #3.

The charging document of May 23, 1990, alleged that Respondent had failed to give urine specimens after December 4, 1989, as was required by the protocol. A hearing on the alleged violation was held before an administrative law judge on July 2 and 3, 1990. Present at the hearing were Debra G. Woodruff, Assistant Attorney General, Administrative Prosecutor and the Respondent, *pro se*. Respondent was advised on his right to be represented by an attorney. On July 18, 1990, the administrative law judge issued a proposed decision, including proposed findings of fact, a proposed conclusion of law, and a recommended disposition. The parties were notified on their right to take exceptions. On August 7, 1990, Respondent filed his exceptions. The State filed no exceptions. The State and Respondent were notified that the Board would hear oral arguments on August 22, 1990 and considered Respondent's exceptions. On August 22, 1990, the Board considered the administrative law judge's proposed decision, Respondent's exceptions and arguments, the State's arguments, and pertinent parts of the transcript. The Board, by a majority vote of those members considering the case, and by a preponderance of the evidence, voted to issue the following final decision.

Summary of Evidence

The State introduced the following exhibits without objection from the Respondent:

State Exhibit 1: Consent Order
State Exhibit 2: Protocol
State Exhibit 3: Charging Document
State Exhibit 4: Affidavit of Service
State Exhibit 5: Mr. Jones' steno book
State Exhibit 6: 41 lab sheets
State Exhibit 7: Dr. Levine's subpoena and Certificate of Service
State Exhibit 8: Dr. Levine's affidavit
State Exhibit 9: Complete record from St. Joseph's Hospital
State Exhibit 10: Complete copy of Respondent's dental records from Dr. Mitcherling
State Exhibit 11: Copy of letter, Debra Sweet, Esquire, to Judith A. Griffith with three receipts for Percocet, Augmentin and Tylox
State Exhibit 12: Subpoena and Percocet prescription written by Dr. Lorentz
State Exhibit 13: Copy of Augmentin prescription (12/2/89) written by Dr. Mitcherling
State Exhibit 14: Copy of Tylox prescription (12/02/89) written by Dr. Mitcherling
State Exhibit 15: Resident evaluation (8/15-11/17/89) by Dr. Kenzora
State Exhibit 16: Resident evaluation (6/23/90) by Dr. Kenzora

The State called LeRoy Jones as a witness.
The Respondent introduced the following exhibits.[2]

Respondent Exhibit 1: Letter, Respondent to Board, June 12, 1990
Respondent Exhibit 2: Letter, Irvin H. Cohen, MD to William Dorrill, August 17, 1989

[1]The Forensic Urine Screen shall include all the drugs on Drug Profile I which includes amphetamines, barbiturates, benzodiazepines, cannabinoids, cocaine, methadone, methaqualone, opiates, phencyclidine, and propoxyphene. In addition, any screen shall screen for meperidine and normeperidine.

[2]Respondent marked two other exhibits for identification purposes, Exhibits 3 and 12 to which the State objected as to their introduction. The State's objection to Respondent Exhibit 12 was sustained since Patsy Walker, who made the statement, was actually present to testify fully on the subject. The State's objection to Respondent Exhibit 3 was sustained since it was only an excerpt of the letter and the entire letter was available to be admitted. The entire letter was therefore substituted without objection as Respondent Exhibit 3. The excerpt was also attached for the benefit of the Board.

Respondent Exhibit 3: Letter, Respondent to Israel H. Weiner MD et al, September 17, 1989
Respondent Exhibit 4: Excerpt from letter to the Board, dated October 30, 1989
Respondent Exhibit 5: Letter, Allen M. Levine MD to Board, June 1, 1990
Respondent Exhibit 6: Flier for Spinal Instrumentation Course, December 4, 1989
Respondent Exhibit 7: Dental records
Respondent Exhibit 8: Note, Respondent's parents, undated
Respondent Exhibit 9: Itinerary
Respondent Exhibit 10: Charge record
Respondent Exhibit 11: Letter, Betsy Tabor to Board, June 5, 1990
Respondent Exhibit 13: Letter, Betsy Tabor to Board, June 26, 1990
Respondent Exhibit 14: Psychosocial assessment
Respondent Exhibit 15: Residential therapeutic discharge summary
Respondent Exhibit 16: Letter, Paul W. Wells to Whom It May Concern, December 19, 1988
Respondent Exhibit 17: Psychiatric evaluation

The following witnesses were called by Respondent: Respondent; Margaret Weigel, Respondent's co-worker; Patsy Walker, an employee in the Drug Treatment Center of UMMS; and Mrs. Schimandle, Respondent's wife.

Findings of Fact

Based on the testimony and exhibits the Board finds, by a preponderance of the evidence, that:

1. At all times relevant hereto, Respondent was required to comply with the conditions of probation as set forth in the Consent Order of February 27, 1989 (Consent Order).

2. Condition #3 of the Consent Order required Respondent to comply with the Board's protocol for urine screening after Respondent returned to his residency program at UMMS.

3. Respondent returned to his residency program at UMMS on July 1, 1989, and was served with the Board's protocol on July 27, 1989.

4. Condition #3 of the Consent Order and the protocol required Respondent to respond to calls to provide urine samples within two hours.

5. Condition #8 of the Consent Order provided that Respondent could be excused from obligatory urine specimens for a limited time when he was traveling outside Baltimore for reasons related to work, employment, future employment, or family matters if Respondent obtained permission in writing in advance of the time of travel from his psychotherapist and obligatory testing was resumed as soon as the travel time ended.

6. Respondent did not see a therapist after August 17, 1989, after Respondent's therapist wrote to the Board stating that he saw no evidence that Respondent was dependent on alcohol or drugs or was of a pathological personality state. The therapist stated that he saw no value in or basis for treating Respondent at that time.

7. Respondent petitioned the Board to modify the terms of his Consent Order requiring him to attend therapy in light of the letter from the therapist.

8. Respondent notified the Board that since he did not have a therapist he would notify Judith A. Griffth, Board compliance officer, if he would be traveling out of Baltimore.

9. The Board did not reply to Respondent's petition for modification of the Consent Order, nor did the Board approve of Respondent's ceasing therapy, or approve his notifying Ms. Griffith.

10. The Respondent took no vacation from the date of the Consent Order, February 27, 1989 and reported for all drug-testing sessions until December 4, 1989.

11. After December 4, 1989, the Respondent established a procedure whereby his immediate supervisor, Dr. Levine, who gave permission for absence to all other residents, would also give permission to the Respondent to travel outside Baltimore. This procedure was not cleared with the Board.

12. Respondent did not respond to being called to give a urine screen on the following dates: 12/04/89, 12/06/89, 12/08/89, 12/12/89, 12/13/89, 12/14/89, 12/18/89, 12/19/89, 12/21/89, 12/26/89, 01/08/90, 01/10/90, 01/16/90, 01/19/90, 01/22/90, 01/24/90, 01/26/90, 01/31/90, 02/15/90, or 02/26/90. In the majority of instances of no response, Respondent has identified his location and activity as being on vacation.

13. In the remaining instances, there is no evidence of Respondent's location and activity.

14. An inference to where Respondent was during these times can be drawn in the negative, i.e., that Respondent avoided answering the beeper because he wished to avoid drug detection or in the positive, that the call was not received because the beeper battery may have been weak, Mr. Jones may not have been available, the beeper may have been shielded, the Respondent may have been out of range, or Mr. Jones may have dialed the wrong number.

Conclusions of Law

Based on a preponderance of evidence, the Board finds that Respondent violated the Consent Order of February 27, 1989, Condition #3, by failing to respond to a call to submit urine screens without written permission as required and approved by the Board.

Addendum

The Board has considered Respondent's exception dated August 7, 1990 to the administrative law judge's proposed Findings of Fact, Conclusions of Law, and Recommendation, which was written as a letter to the Board. (The State filed no exceptions but did present argument). This letter of three pages excepts to only one Finding of Fact. Respondent states:

> I have thoroughly read Mr. Fowler's summary of evidence and findings of fact and have no difficulty accepting what he has written other than it being Demerol and not Percocet that was detected in a urine screen in November 1988. What does have me incredibly concerned, as would be expected, is his recommended disposition.[3]

[3]The administative law judge's recommended disposition was revocation.

The Board also considered the arguments made by Respondent and the State. The Board accepts Respondent's exception to the recommended sanction and will permit Respondent to continue to practice medicine as an unlicensed individual.

The administrative law judge recommended that Respondent's registration be revoked based on Respondent's violating the Consent Order and Respondent's recalcitrant attitude. The Board agrees that Respondent did violate the Consent by not submitting to urine screens. An inference can be drawn, as the State so deftly argued, that Respondent did not respond to the calls because he wanted to avoid detection. However, there is no definitive proof that this was the reason. This fact, together with the fact there is no evidence of incompetence (though the most recent evaluation of Respondent was not as strong as those in the past), and the knowledge that the Board could fashion an Order which amply protects the public, while obtaining conclusive proof whether Respondent is addicted to drugs, made the Board decide not to impose the most severe sanction. However, the Board is adamant that even the slightest deviation from this Order will result in a lifting of the stay of revocation and in concluding that Respondent is addicted to drugs.

Order

Based on the foregoing Findings of Fact and Conclusions of Law, it is hereby, this 24th day of September, 1990, by a majority vote of those members of the Board considering this case:

ORDERED that Respondent's registration to practice medicine as an unlicensed practitioner at UMMS under Health Occupations Article §14-302, is hereby REVOKED; and be it further

ORDERED that said revocation is immediately STAYED and Respondent is placed on PROBATION and SHALL comply with the following conditions:

1. Respondent shall have urine tests three times a week, Monday at 8:00 a.m., Wednesday at 8:00 a.m. and Friday at 4:00 p.m. for eighteen months. The urine tests shall be carried out under the terms of the Protocol. Respondent shall pay the cost of those tests.

2. Respondent shall pay the costs of all urine tests, the results of which were submitted to the Board from July 1, 1989 until the present. These costs shall be paid within eighteen months of the effective date of this Order.

3. Respondent must notify the Board in writing by certified mail at least two weeks in advance of leaving Baltimore, if his absence would prevent him from submitting the scheduled urine screens. Respondent must obtain the Board's approval prior to leaving. No approval will be granted for travel outside the continental United States. Respondent must arrange to have urine testing performed when he is outside of Baltimore at a facility approved by the Board. In the event of an emergency, Respondent must contact Israel H. Weiner MD, Chairperson of the Board; J. Michael Compton, Acting Executive Director; or Margaret T. Anzalone, Deputy Director, by telephone prior to leaving. Upon request, Respondent will receive the business numbers and home numbers of these individuals.

4. Respondent must notify the Board, in writing, within one week of any change of his mailing address.

5. Respondent shall inform his immediate supervisor in any residency program or any other employment which he undertakes during the time in which this Consent Order is in effect of the existence of the Consent Order and its terms. Respondent shall execute a release to the Board permitting the Board to obtain from any such supervisor, performance reports concerning Respondent's job performance on a quarterly basis. Respondent shall arrange for his supervisor to confirm in writing to the Board that the supervisor has read this Order and understands Respondent's obligations under this Order.

6. Respondent shall only administer Schedule II narcotics intravenously if the administration is witnessed by another healthcare professional. The witnessing of the administration of intravenous Schedule II narcotics shall be noted in the chart of the patient to whom the narcotic is administered.

7. When administering a Schedule II narcotic to a patient in any dose, Respondent shall document in the patient's chart the reason that the narcotic is being administered in the dose and at the interval that it is administered.

8. If, in the course of his employment as a resident physician, Respondent finds that he is treating a patient who is addicted to narcotics, Respondent will attempt to initiate a drug intervention treatment program for that patient by contacting, either verbally or in writing, any drug abuse intervention program or drug treatment program present at the hospital in which he is working. Respondent will inform the drug abuse intervention program or drug treatment program that the patient he is treating is addicted to narcotics so that drug treatment can be offered to that patient.

9. Respondent must give a copy of this Order to any person (institution, individual, association, partnership, or corporation) to whom Respondent applies for a position to practice medicine.

10. Respondent shall not possess, dispense, use, or provide to any person any controlled dangerous substance. However, this does not prohibit Respondent from prescribing controlled dangerous substances for individuals under Respondent's medical care. In the event that Respondent is given a prescription for a controlled dangerous substance by a physician or an allied health professional for a physical or mental problem, Respondent shall inform the health provider of the existence of this Order and its terms. Respondent shall sign a release permitting the health provider to forward to the Board, a copy of Respondent's medi-

cal records in which the reason for prescribing the controlled dangerous substance shall be documented; and be it further

ORDERED that in the event that Respondent leaves or is terminated from his present position at UMMS, Respondent must immediately notify the Board in writing. If Respondent leaves or is terminated from UMMS before the completion of these conditions of probation, the Respondent must petition the Board for modification of this Order. However, conditions 1, 2, 3, 4, 5 and 10 remain in effect; and be it further

ORDERED that if Respondent breaches any term of this Order, or if Respondent provides a urine specimen that tests positive, then the Board may immediately lift the stay of the revocation of Respondent's registration, without notice and an opportunity for a hearing, provided that Respondent is given notice of this action, the reasons for same, and an opportunity to be heard within thirty days after Respondent requests a hearing; and be it further

ORDERED that eighteen months after this Order has been executed, Respondent may petition the Board for reinstatement of his registration to practice medicine without any conditions whatsoever. In considering whether to reinstate Respondent's registration (or if applicable, grant Respondent a license), the Board shall consider whether Respondent has complied with all of the conditions of this Order, and if Respondent has satisfactory evaluations from Respondent's supervisor; and be it further

ORDERED that the Consent Order of February 27, 1989, is hereby VACATED; and be it further

ORDERED that this Order is a Formal Order resulting from a disciplinary proceeding and as such is considered a public document pursuant to State Government Article, Annotated Code of Maryland, §10-617(h), and Health Occupations Article (HO) §14-510-.1.

ISRAEL H. WEINER MD, Chairperson
Maryland Board of Physician Quality Assurance

Exhibit A

In The Matter of
Jeffrey Schimandle MD
Before the Maryland Board of
Physician Quality Assurance

Consent Order
Background and Findings of Fact

On June 21, 1988, after reviewing certain information which came to the attention of the Commission on Medical Discipline of Maryland, that body, pursuant to its authority under the State Government Article, §10-405(b), Annotated Code of Maryland, summarily suspended the registration of Respondent, Jeffrey Schimandle MD to practice medicine in the State of Maryland. On August 22, 1988, pursuant to an agreement reached between Respondent and the Board of Physician Quality Assurance, successor to the Commission on Medical Discipline, (the Board), and prior to any hearing or other disposition of the Emergency Order summarily suspending the registration, the Board and Respondent entered into a Consent Order by which the prior Emergency Order was vacated and Respondent's registration to practice medicine in the State of Maryland was reinstated subject to certain conditions.

On or about November 16, 1988, having received certain information indicating that a violation of one of the conditions of the August 22, 1988 Consent Order had occurred, the Board summarily suspended the registration of Respondent to practice medicine in the State of Maryland and issued certain charges against him. Prior to any hearing of disposition of the Board's November 16, 1988 Emergency Order summarily suspending Respondent's registration to practice medicine in Maryland and prior to any hearing or disposition upon any charges made by the Board against Respondent, Respondent and his counsel met with certain members of the Board to discuss informally the emergency suspension and charges related thereto in an attempt to resolve the matter by agreement of the parties.

As a result of the aforementioned informal discussions held between the parties, the Board has determined as a finding of fact that Respondent admits that he violated a condition of the August 22, 1988 Consent Order, namely, that on or about November 5, 1988, Respondent ingested one 75 mg tablet of Demerol.

On the basis of the information received, reviewed, and discussed concerning Respondent, it has been agreed by and between the parties that the Emergency Suspension of November 16, 1988 will be vacated and that the parties will enter into this Consent Order, the terms of conditions of which are listed below.

Order

It is hereby ORDERED this 27th day of February, 1989, by the Board of Physician Quality Assurance that the Emergency Order of November 16, 1988 is hereby VACATED and that Respondent's ability to become registered to practice medicine in a postgraduate training program in the State of Maryland is hereby REINSTATED subject to the following conditions of probation:

1. For a period of three years beginning on the date on which this Consent Order is executed, Respondent shall attend weekly individual psychotherapy sessions with one of the three psychotherapists recommended in the January 27, 1989 report of Charles L. Whitfield MD. Respondent shall execute a release providing that records of psychotherapy may be provided to the Board so that attendance may be monitored.

2. For a period of one year occurring sometime during the three-year period immediately following execution of this Consent Order, Respondent shall participate in weekly general group therapy administered by one of the psychotherapists recommended in the January 24, 1989 report of Charles L. Whitfield, MD.

3. For a period of one year beginning on the date that this Consent Order is executed, Respondent shall provide random supervised urine samples for forensic screening including meperidine, at a minimum of three times per week. For a period of one year thereafter, Respondent shall provide random supervised urine samples for forensic screening for meperidine and normeperidine at a rate per week to be established by the Board hereafter. During the period of time after this Consent Order is executed, but before Respondent returns to work as a resident physician, Respondent will provide urine samples for screening by contacting the Resource Center by telephone as instructed by Dr. Whitfield. Once Respondent resumes work as a resident physician, he will provide the minimum of three urine samples per week based upon a protocol to be established by the Board. This protocol will require Respondent to be available by beeper to respond to calls made to him to provide urine samples and will further require that Respondent will provide a urine sample within two hours of the time that Respondent is notified and a request for a urine sample is made. All urine samples will be strictly supervised by a person or persons hereafter named by the Board to serve that function and all urine samples will be submitted to the supervising person or persons without Respondent having any contact with the sample once given.

4. The identification and handling of all urine specimens given by Respondent shall be made and carried out according to the chain of custody procedure established by Maryland Medical Laboratories. Each urine specimen given by Respondent will be obtained at the

place at which it has been given by a representative of Maryland Medical Laboratories within twenty-four (24) hours. Respondent shall not touch or handle any urine specimen given by him after it has been taken by the supervising person, nor shall he be responsible for the handling, transportation or delivery of any urine specimen given by him. Each urine sample will be tested for a urine drug screen, Forensic I, and shall be performed on the premises of Maryland Medical Laboratories.

5. A urine specimen that tests negative upon one drug screening test is a negative specimen. A urine specimen that tests positive upon one drug screening test shall be retested with a second, confirmatory test. If the second confirmatory test is negative, then the urine specimen is a negative specimen. If the second confirmatory test is positive, then the urine specimen is a positive specimen. If the laboratory fails to perform a second confirmatory test upon a urine specimen that has tested positive one time, then the urine specimen is a negative specimen.

6. Maryland Medical Laboratories will send the final result of each urine specimen drug-screening test to the Board as soon as possible, but not later than four days after the urine is tested. Upon receipt of the result, the Board will send a copy to Respondent. Respondent shall execute a release authorizing Maryland Medical Laboratories to release the tests to the Board.

7. The cost of all urine specimen drug-screening tests will be borne by the Board of Physician Quality Assurance.

8. If during the period in which this Consent Order is in effect, Respondent must travel outside of Baltimore for reasons related to his work, employment or future employment, or family matters, Respondent shall obtain written permission from his psychotherapist to be excused from obligatory urine specimens for the limited period of time that he will be traveling. Permission must be obtained in writing in advance of the time of travel and obligatory urine testing must be resumed as soon as the travel time has ended.

9. Respondent shall inform his immediate supervisor in any residency program or any other employment which he undertakes during the time in which this Consent Order is in effect of the existence of the Consent Order and its terms. Respondent shall provide a release to the Board permitting the Board to obtain from any such supervisor performance reports concerning Respondent's job performance on a quarterly basis.

10. Respondent shall request the psychotherapist in charge of his treatment to provide monthly reports to the Board during the first year of psychotherapy and quarterly reports thereafter during the time period in which this Consent Order is in effect. The psychotherapist shall confirm in writing to the Board his understanding of the responsibilities under this agreement.

11. Respondent shall only administer Schedule II narcotics intravenously if the administration is witnessed by another healthcare professional. The witnessing of the administration of intravenous Schedule II narcotics by Respondent shall be noted in the chart of the patient to whom the narcotic is administered.

12. When administering a Schedule II narcotic to a patient in any dose, Respondent shall document in the patient's chart the reason that the narcotic is being administered, and the reason that the narcotic is being administered in the dose and at the interval that it is administered.

13. If in the course of his employment as a resident physician, Respondent finds that he is treating a patient who is addicted to narcotics, Respondent will attempt to initiate a drug intervention treatment program for that patient by contacting, either verbally or in writing, any drug abuse intervention program or drug treatment program present at the hospital in which he is working. Respondent will inform the drug abuse intervention program or drug-treatment program that the patient he is treating is addicted to narcotics so that drug treatment can be offered to that patient.

14. For a period of three years beginning on the day that this Consent Order is executed, Respondent shall not possess, dispense, use or provide to any person any controlled dangerous substances. However, this does not prohibit Respondent from prescribing controlled dangerous substances for individuals under Respondent's medical care.

15. If Respondent provides a urine specimen that tests positive or fails to provide a urine specimen under the terms of this Consent Order, then the Board, pursuant to its authority under State Government Article, §10-405(b) Annotated Code of Maryland, WITHOUT PRIOR NOTICE AND AN OPPORTUNITY TO BE HEARD, may immediately reinstate the Emergency Order of November 16, 1988 with amendments, if necessary, summarily suspending Respondent's registration to practice medicine provided that Respondent is given notice of this action and an opportunity to be heard within thirty days after Respondent requests the hearing.

16. If Respondent breaches any of the terms of this Consent Order other than the terms requiring provision of urine specimens for testing, then the Board reserves its right pursuant to law to suspend and/or revoke Respondent's registration to practice medicine in the State of Maryland subject to prior notice and hearing.

17. If, three years after the day on which this Consent Order is executed, Respondent has complied with all of the terms of this Consent Order, the Board shall fully reinstate Respondent's registration to practice medicine in the State of Maryland without any restrictions or conditions.

18. Respondent shall apprise the Board of his place(s) of employment at all times during which this Consent Order is in effect and shall also advise the Board of any change of address during that period.

It is hereby ORDERED that the November 16, 1988 Emergency Order of the Maryland Board of Physician Quality Assurance suspending Respondent's registration to practice medicine on an emergency basis, shall be and hereby is IMMEDIATELY VACATED upon the effective date of this Order, that being the date on which the Board signs this Order and that this Consent Order shall be in full force and effect for a period of three years thereafter; and be it further

ORDERED that in the event that Respondent is found in violation of any condition of compliance contained herein, the Board may assess against Respondent the costs borne by the State for the urine screening of Respondent; and be it further

ORDERED that this is a final order and as such is considered a public document pursuant to State Government Article of the Annotated Code of Maryland, Section 10-611 *et seq* and Health Occupations Article, §14-510.1.

ISRAEL H. WEINER MD, Chairperson
Maryland Board of Physician Quality Assurance

Consent

By this Consent, I hereby accept and agree to be bound by the foregoing Order and its conditions and restrictions.

I acknowledge the validity of this Order and the legal authority of the Board of Physician Quality Assurance to issue and enforce this Order.

I acknowledge that by consent to this Order, I am waiving my right to challenge in court the legal authority of the Board of Physician Quality Assurance to take emergency and summary action against my registration to practice medicine in the State of Maryland.

I understand, having been informed by counsel, that by consenting to this Order, I am not waiving my right to challenge the substance and findings contained in the November 16, 1988 Order for Emergency Suspension of Right to Practice Medicine, should the November 16, 1988 Emergency Order be reinstated pursuant to the terms of this Consent Order.

I further acknowledge that the Order provides that the November 16, 1988 Emergency Order may be reinstated WITHOUT NOTICE AND AN OPPORTUNITY TO BE HEARD in the event that the Commission or Board receives notice that my urine specimen tested positive for the presence of controlled dangerous substances or that I have violated any of the conditions of this Order. I acknowledge that in the event that the November 16, 1988 Emergency Order is reinstated, I will be given notice and an opportunity to be heard within thirty days of my request for a hearing.

I sign and consent to this Order after having an opportunity to consult with counsel and with full understanding of the meaning of the terms of the Order.

JEFFREY H. SCHIMANDLE MD ■

If these are your Questions:

What is meant by impairment?
When considering self-disclosure,
what issues should be taken into account?
How will others react to my
self-disclosure?
Should I tell my colleagues?
What should I tell my patients?
What should I say on applications for
privileges, licensing, etc.?

The Physician Rehabilitation Committee Has the Answers

For a free copy of "To Disclose or Not to Disclose," a brochure of questions and answers on the topic of self-disclosure for the physician recovering from impairment or illness, published by the Physician Rehabilitation Committee of the Medical and Chirurgical Faculty of Maryland as a service to all Maryland physicians, members and non-members, write to Med Chi, Physician Rehabilitation Committee, 1211 Cathedral Street, Baltimore, MD 21201 or call (301) 539-0872 or in MD 800-492-1056.

Legal and Ethical Concerns of Your Medical Practice

This monthly digest will summarize the laws of the State of Maryland, as well as the guidelines, procedures, codes of cooperation, and policy statements of the Medical and Chirurgical Faculty. These laws and policies are being published to reflect recent areas of concern to physicians throughout the state. The Principles of Medical Ethics of the American Medical Association have been adopted as the ethical standards of the Medical and Chirurgical Faculty, and they govern the conduct of members in their relations to the public and to each other (Faculty Bylaws, Article XIII, Section 1). For more information, please refer to the Compendium of Laws, Regulations, Opinions and Policies Governing the Practice of Medicine in Maryland.

■ ■ ■

Drug Testing of Employees

Questions surrounding the testing of employees for drugs or alcohol addiction have arisen recently as employers try to control job and health-related costs associated with such addictions. A September 10, 1990 Attorney General opinion addressed two such questions (75 *Opinion of the Attorney General*, 1990 [Opinion No. 90-043, September 10, 1990]). Much of the information below is capsulized or taken verbatim from that opinion.

At issue in the opinion is the "job-related alcohol and controlled dangerous substances testing" statute which was originally passed in 1988 and amended as recently as 1990 in the Maryland General Assembly. That statute delineates procedures that are designed to ensure fair and accurate drug and alcohol testing under an employer-sponsored testing program. The statute neither encourages nor discourages testing. It simply prescribes procedures to be followed when an "employer requires any person to be tested for job-related reasons" (HG § 17.214.1(b)).

The Statute

Under HG §17-214.1(b)(1), an employer must have the specimen tested by a laboratory that holds a permit from the Laboratories Administration of the Department of Health and Mental Hygiene (DHMH) or, if the laboratory is located outside the State, is "certified or otherwise approved" under HG §17-214.1(e). This latter subsection provides that DHMH is to adopt regulations governing the certification of laboratories that conduct job-related drug and alcohol testing. The regulations require laboratory compliance with certain standards, and establish guidelines for accreditation for proficiency testing and for compliance with federal cutoff levels for positive testing; they also include procedures for annual recertification and inspection (See COMAR 10.10.01). An employer who requires an employee to be tested, must also inform the employee of the name and address of the laboratory that will perform the test, if the employee so requests (HG §17-214.1(b)(2)).

If the employee has been tested positive for the use or abuse of any drug or alcohol, the employer must, after confirmation of the test results, supply the employee with: (1) a copy of the test result; (2) a copy of the employer's written policy on drug or alcohol abuse; (3) if applicable, written notice of the employer's intent to take any disciplinary action; and (4) a statement or copy of the provisions of HG §17-214.1(d), which permit an employee to request independent testing of the same sample for verification of the test result. The notification must be delivered in person or by certified mail within thirty days from the date the test was performed (HG §17-214.1(e)).

Finally, HG §17-214.1(h)(1) requires that certain information be kept confidential:

> "Except as [required by certain federal laws on commercial motor vehicles], in the course of obtaining information for, or as a result of, conducting job-related alcohol or controlled dangerous substance testing for an employer under this section, a laboratory, a physician, including a physician retained by the employer, or any other person may not reveal to the employer information regarding:
> (i) The use of a nonprescription drug, excluding alcohol, that is not prohibited under the laws of the State; or
> (ii) The use of a medically prescribed drug, unless the person being tested is unable to establish that the drug was medically prescribed under the laws of the State."

Authority to Order Tests

The first question posed to the Attorney General was: "Who is authorized to order a drug test under the statute?" After reviewing the federal and state law governing this issue the Attorney General concluded:

> "Although a laboratory generally may analyze a specimen only upon order of a physician, this requirement does not apply to drug tests conducted for job-related reasons. An employer may contract directly with a laboratory for such testing."

In support of such a conclusion, the Attorney General related the following arguments:

> "Under Maryland law, as a general matter, only a physician, or someone acting under the authority of a physician, may order a laboratory test. Under the Maryland Medical Practice Act, the practice of medicine includes, in relevant part, the following:

> Diagnosing, healing, treating, preventing, prescribing for, or removing any physical, mental or emotional ailment or supposed ailment of an individual ...

... [T]hese general provisions, however, are framed with reference to laboratory testing as an outgrowth of the therapeutic relationship between physician and patient. None appears to contemplate the quite different circumstances of a workplace drug-testing program, under which testing is for 'job-related reasons' (HG §17-214.1(b)). And the one statute directly addressing workplace testing, HG §17-214.1, does *not* require that testing be ordered by a physician.

... [T]he pertinent statute omits such a requirement because it would make little sense, given the realities of job-related testing. For example, assuming no impediment from a collective bargaining agreement, a private sector employer is free to adopt a random-testing program for its employees. Surely no public policy objective would be served by having a physician engage in the ministerial act of signing testing requisitions for those employees selected at random to be tested. See generally, *Morris v. Prince George's County*, 319 Md. 597. 603-04, 573 A.2d 1346 (1990) (statutes are to be construed to achieve 'the legislative purpose, the general aim or policy, the ends to be accomplished, the evils to be redressed ...')."

Reporting of Results

The other set of questions posed to the Attorney General related to the reporting of results:

- How are the results communicated to the employer and by whom?
- Who is authorized to review the results and speak with employees or employee-applicants if a test is confirmed positive?
- Is a medical review officer required?

The Attorney General concluded:

> "A laboratory must ensure that positive results are screened before the laboratory reports them to the employer, so that information which may not be reported has been deleted. The screening must be done by a physician or other professional qualified to assess whether positive test results reflect permissible use of over-the-counter or prescription drugs. Maryland law does not require that the screening be done by a 'medical review officer,' which is a term in the guidelines of the federal drug-testing program referring to a physician specifically trained in substance abuse disorders who evaluates positive test results in light of an employee's medical background."

Conclusion

It is evident from the opinion that while the Attorney General feels that leeway may be allowed in ordering or requesting such tests, it is essential that all results be screened by a physician or an equally qualified professional. A copy of the entire opinion and the relevant statutes may be obtained by contacting the Faculty at (301) 539-0872 or 1-800-492-1056. Please feel free to write concerning your reactions to this opinion.

GREGORY DON HALL PD, JD, LLM ■

Information for Authors

Manuscripts may be sent to Editor, **MMJ**, 1211 Cathedral St., Baltimore, MD 21201. Articles are accepted for publication on the condition that they are contributed solely to this journal. Transmittal letters should designate one author as correspondent and include his/her address and telephone number. Manuscripts are reviewed by editorial board members and guest reviewers.

Specifications

Manuscripts must be original typed copy, double-spaced throughout (including text, case reports, legends, tables, and references) with pages numbered consecutively. Along with manuscripts, please send an IBM-compatible floppy disk, with the document entered in a Word Perfect, Multimate, or Wordstar program.

Include full name of author(s) with highest degree, academic and professional titles, affiliations, and any institutional or other credits.

Tables with brief descriptive titles are to be typed on separate sheets of paper and numbered. The Editor reserves the right to edit tables. Statistics must be consistent in both tables and text.

References are limited to those citations noted in the text and are to be typed double-spaced and numbered consecutively as they appear in text. The number of references generally is limited to 20 in major contributions and fewer in shorter articles. Personal communications and unpublished data should not be included.

Photographic material must be submitted as high-contrast glossy prints. Drawings and graphs must be of professional quality. Four or fewer illustrations should be adequate for a manuscript of 4 or 5 typed pages. Recognizable photos of patients are to be masked and should carry with them written permission for publication.

For more extensive information about preparing medical articles for publication, see the **Uniform Requirements for Manuscripts Submitted to Biomedical Journals** compiled by the International Committee on Medical Journal Editors (available through the **Annals of Internal Medicine**).

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* * *

Page proofs will be mailed to the principal author and, if not returned by the specified date, will be considered approved as typeset.

Dr. Osler and the Book and Journal Club of the Medical and Chirurgical Faculty of Maryland

Many readers are familiar with how Dr. William Osler (Figure) came to Baltimore and the Johns Hopkins University Medical School. However, not all are aware that upon arriving in Baltimore in 1889, one of Dr. Osler's first activities was to visit the Medical and Chirurgical Faculty and to look over the library. It is easy to imagine the dismay that a bibliophile like Osler must have felt upon learning that the Faculty did not even house the collection. Instead it had been shunted off to the basement of the Maryland Historical Society.[1,2] With this discovery fresh in his mind, Dr. Osler took it upon himself to contact the Faculty's President, Aaron Friedenwald, and offer to serve on the Library Committee. As Osler was already well-known to the Medical and Chirurgical Faculty's leaders as a result of his lecture the prior year on "medical licensure,"[1] his offer was readily, and wisely, accepted. Thus began a relationship between Osler and the Faculty that would continue throughout his tenure in Baltimore.

After serving on the Library Committee for several years, Osler suggested, and soon thereafter established, The Book and Journal Club (Table). This was an effort by Osler to create an atmosphere of genial discussion and scholarly exchange similar to that which he had enjoyed during his time in Philadelphia, and would later establish with even greater success in Oxford.[2] According to the Club's charter, the Book and Journal Club members were to meet over dinner to review the latest in medical research and to recommend new titles for the library collection, allowing Faculty members to have a say in shaping the library.[3] Since collection development in the Faculty library prior to this period had been haphazard at best, this was a welcome development.

Each meeting of the Club was followed invariably by that typical nineteenth century male gathering - a smoker - where Osler would hold the rapt attention of his fellow physicians as he discussed the importance of one of the classics in medical literature. However, the first official presentation on the history of medicine was not presented by Osler but by Dr. Robert Fletcher,

Table. Initial Members of the Book and Journal Club

William Osler (President/Chairperson)
Louis McLane Tiffany
John D. Blake
John S. Fulton
Thomas A. Ashby
William A.B. Sellman
George J. Preston
Walter Platt
Henry Friedenwald (Secretary/Treasurer)
William Welch (invited, attended the second Meeting)
Henry Hurd (invited to the second Meeting)



Figure - Dr. William Osler

John Shaw Billings' assistant at the Surgeon General's Library, who lectured on the plague of 1630 in Italy. Osler's first official presentation to the group was a review of his visit to Samuel Pepys' personal library and the medical titles in that collection.[3]

Over the course of the next thirteen years, the Club, under Osler's guidance, would undertake a wide variety of activities intended to improve the Faculty's image in the Maryland medical community. These efforts included fundraising among the general membership; encouraging the Faculty to seek out new members, particularly students; assisting the Faculty in planning the centennial celebration; and urging the Faculty to pay off its various leases with an eye toward purchasing a larger, more modern facility.

As the needs of the library were at the core of the group's creation, this area was not neglected. During the "Osler period," the Club secured the donation of the Friedenwald Room, subscribed to over forty separate foreign journal titles, acquired the Frick and Upton Scott Collections, added lights and heat to the Faculty Library (a sorely needed improvement), and hired the Faculty's first full-time librarian - Marcia Noyes. The members of the Book and Journal Club also voted to turn over a portion of their membership dues to the Library Committee for additional purchases.[3-5]

It is interesting, and typical of what we have come to know of Osler's character, that while he was in-

strumental in reestablishing the Library as the center of the Faculty's social and scholarly life, Osler would never serve as Chairperson of the Library Committee, though the position was offered to him several times while he was in Baltimore. When it came to the Library Committee, Osler seemed to prefer to work within the Committee, never commanding but nonetheless, exerting a good-natured leadership.

As in all Clubs, the members of the Book and Journal Club sometimes got bogged down during their meetings with smaller issues. An example is the February 19, 1902 meeting in which the topic was the appropriate usage of Latin and Greek in defining modern medical terms. The debate, which lasted two hours, was summed up by guest speaker, Achilles Rose MD of New York. Rose thought that older physicians were not fulfilling their obligation to instruct younger members of the profession in the appropriate terms for the many new discoveries and operations taking place. An ovariectomy, Rose claimed "meant a tariff on eggs and not the removal of the human ovary."[3]

In 1903, the Club had been active in the Faculty's publication of Cordell's *Medical Annals of Maryland*. Upon Osler's departure for Oxford in 1905, the Club decided to turn more of its attention to the Medical Faculty's history.

> The new policy of the Club will be, in addition to buying books and journals, to encourage some work along historical lines by members of the Faculty. To further this, three meetings have been arranged this season...Here is a splendid opportunity for members of the Faculty to work up the lives of the old Maryland physicians, which few of us now realize were so potent in the medicine of their day, and as such should be brought to light now.[6]

At about this time, the Club began to feel the pinch of financial problems that had been developing slowly over the past few years. Nothing so drastic that it would force the Club to disband but it did force members to review their spending habits. Club members decided that they now could only afford to have after-dinner "smokers" on special occasions. However, they neglected to define just what would constitute a special occasion, and from later invitations it would appear that there were plenty of special occasions!

Upon Osler's death in 1919, the Club voted to rename their annual donation of Club dues to the Faculty Library as the "Osler Testimonial Fund." This gesture would prove to be short-lived however, as the money problems which had first appeared in the late 1890s continued to plague the group. By 1922, the Club was petitioning to become a regular committee of the Faculty in order to defray some of its operating costs. More importantly, in 1925 the Club members agreed to stop selecting and purchasing materials for the Library, turning both selection and the "Osler Testimonial Fund" over to the control of the Library Committee.[7]

The Book and Journal Club's petition to the Faculty Executive Board was approved that year, allowing the group to continue for another twenty years as a regular committee of the Medical and Chirurgical Faculty. In 1928, the Committee voted to again honor their Founder by changing the name to the Osler History Club (some invitations and announcements identify the group as the Osler History Society - the terminology was not consistent), becoming one of the earlier history of medicine groups to so honor the great physician. (The Mayo Foundation was one of the earliest, if not the first.[8]) Yet without Osler's direct influence, membership continued to ebb and flow during the final ten years of the Club's existence, never quite attaining the level of enthusiasm that the group had experienced under its Founder.

The group did enjoy one last burst of activity - starting in 1936 and lasting until 1941 - under the leadership of Alan Chesney and Louis Krause. However, issues greater than medical history were awaiting around the corner and the energy these two physicians possessed would shortly be redirected. In 1942, the Club voted not to meet for the duration of the war effort, an inevitable decision as many Faculty members were already enlisted or involved in the war effort. This decision proved to be the death blow for the Club, as physicians returning home from the war had little time or interest to devote to the Faculty or to its committees; except for the occasional special meeting, the Club had ceased to exist.[9]

Sir William Osler's influence on the study and collection of medical history through the Book and Journal Club has long been recognized at the national/international level. Just a few of the former club members who would leave their mark in the field were William Welch, Henry Barton Jacobs, Harvey Cushing, Alan Chesney, Eugene Cordell, Harry Friedenwald, John Ruhrah, and Louis Krause. While many of these physicians had discovered the value and joy of studying medicine's past prior to coming together in the Club, the friendships and the opportunity for the exchange of ideas and theories the Club provided, doubtlessly played a role in their later careers and, consequently, the entire field of the history of medicine.

In addition, many of the members of the Book and Journal Club/Osler History Club carried the ideals of Osler beyond the walls of the Medical and Chirurgical Faculty, becoming involved (along with Osler in some cases) in the creation of several other medical groups such as the Interurban Club and the Medical Library Association.

At the local level, Osler's involvement in the Book and Journal Club helped to breath new life into the Faculty. By participating in both the Library Committee and The Book and Journal Club, as well as serving as President of the Faculty, Osler helped to generate interest and enthusiasm for the Faculty's library, laying the foundation for the creation of a genuinely unique Maryland resource - a library collection that reflects not only the growth of medicine in Maryland but around the world. Physicians with a scholarly bent, like John Ruhrah, who wrote an unpublished biography of Osler, and Louis Krause would so thoroughly

absorb Osler's ideals that they would go on to leave their own legacy to the Medical and Chirurgical Faculty of Maryland in the form of books and monies for the Library's continued growth.

WILLIAM SLEEMAN
Archivist - History of Medicine Collection
Medical and Chirurgical Faculty of Maryland

References

1. Reid EG. The Great Physician: A Short Life of William Osler. London: Oxford University Press, 1931.
2. Cushing H. The Life of Sir William Osler. Oxford: Clarendon Press, 1925.
3. Minutebook of the Book and Journal Club. Archives of the Medical and Chirurgical Faculty of Maryland. Box 110 pp 2, 41, 45, 56 and 97.
4. Woods H. Influence in building up the Medical and Chirurgical Faculty. Johns Hopkins Bulletin. 1919;30(341).
5. Noyes M. As we build. Celebration of the Centennial of the Library of the Medical and Chirurgical Faculty of Maryland, 1830-1930. Baltimore: The Medical and Chirurgical Faculty. 1931:54-60.
6. Programme of the Book and Journal Club of the Medical and Chirurgical Faculty of Maryland - Thursday, February 10, 1910. Archives of the Medical and Chirurgical Faculty of Maryland. Box 110.
7. Manuscript of Henry Friedenwald on the History of the Book and Journal Club. Archives of the Medical and Chirurgical Faculty of Maryland. Box 110.
8. Mann RJ and Key JD. The Osler Medical Historical Society: Mayo Foundation Chapter. August 28, 1920-July 3, 1925. Papers of the American Osler Society reprinted in The Persisting Osler: Selected Transactions of the First Ten Years of the American Osler Society. pp 291-99.
9. Letter - John Sargeant, Executive Director of the Medical Faculty to Dr. Neil McIntyre, Osler Club of London - June 7, 1972. Archives of the Medical and Chirurgical Faculty of Maryland. Box 110.

Preliminary Record Guide

History of Medicine Collection: Archives

BOX 110 - Book and Journal Club, Osler History of Medicine Society; SIZE: One Record Box; ACCESS: Open; REPRODUCTION: Photocopies are available on approval of the Archivist; PROCESSING: Original file order maintained but original files replaced with acid-free folders and photographs removed to the Picture Collection (see Archivist for access).

File 1 Correspondence 1900-1920s
File 2 Correspondence 1930-1931, 1933-1934, 1937
File 3 Correspondence 1940, 1942, 1946
File 4 Correspondence 1960
File 5 Correspondence 1972
File 6 Correspondence (undated)
File 7 Osler Memorial Volume Correspondence
File 8 Donation of Osler prescriptions, 1933
File 9 Addresses/lectures
File 10 Membership lists
File 11 Programs/announcements
File 12 Minutebook, Book and Journal Club, Osler History Club
File 13 History of the Osler History Club
File 14 Miscellaneous items (bookplates, newsclippings, etc.)
File 15 "A Message from Oxford" flier
File 16 Constitution and Bylaws of the Medical and Chirurgical Faculty of Maryland, 1929
File 17 Other medical history groups (programs/announcements): Osler Society of McGill University; The Laennec - Society for the Study of Tuberculosis; Johns Hopkins University School of Medicine; and Johns Hopkins Medical History Club ■

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Am Fam Phys 1987;36:133-140

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Warnings: CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS. PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS.

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Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:
- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
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Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:
- Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of **serum-sickness-like** reactions have been reported with the use of Ceclor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, **serum-sickness-like** reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy; occasionally these reactions have resulted in hospitalization, usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symptoms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.
- Stevens-Johnson syndrome, toxic epidermal necrolysis, and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.
- Gastrointestinal (mostly diarrhea): 2.5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertonia, dizziness, and somnolence have been reported.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.

Abnormalities in laboratory results of uncertain etiology.
- Slight elevations in hepatic enzymes.
- Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
- Rare reports of increased prothrombin time with or without clinical bleeding in patients receiving Ceclor and Coumadin concomitantly.
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Gerald A. Glowacki MD was presented with the *Maryland Medical Journal's* (*MMJ*) Best Article Award during the Med Chi Semiannual meeting in September. His article, "Estrogen Replacement Therapy: Risk/Benefit Ratio for Treatment," was featured in the July 1989 issue of *MMJ*.

Dr. Glowacki is Chairman of the Department of Obstetrics and Gynecology at Franklin Square Hospital and is an assistant professor in the OB/GYN Department of Johns Hopkins Hospital.

After graduating from the Upstate Medical Center in Syracuse, New York, he became a Fellow of the American College of Obstetrics and Gynecology, and the American Fertility and Sterility Society.

A past president of the Baltimore County Medical Association (BCMA), the Maryland Obstetrical and Gynecological Society, and the Maryland Division of the American Cancer Society, Dr. Glowacki is active in several other organizations including the American Association of Gynecologic Laparoscopists, and the Gynecologic Laser Society of which he is a founding member.

Dr. Glowacki has published numerous articles in several other medical journals including the *Journal of Reproductive Medicine* and the *Journal of Gynecologic Surgery*. He is a member of the Editorial Board of *Gerontology and Geriatrics Education* and has served on the Editorial Board of *Laser Beam*. The *MMJ* Editorial Board congratulates Dr. Glowacki on his award.

■ ■ ■

H. Margaret Zassenhaus MD was officially invited by the President of the University of Hamburg, Germany, where she was appointed an Honorary Senator of the University of Hamburg; this honor has only been awarded twenty-eight times in the past forty years. This in only the most recent of many awards earned by Dr. Zassenhaus, an internist in Towson.

Knighted by both the King of Norway and the King of Denmark in the early 1960s, she was subsequently nominated by the Norwegian Government for the Nobel Peace Prize. Her autobiography, *Walls,* was chosen as "Best Book of the Year" by three organizations including The American Library Association. In addition, a documentary of her life and work, *It Mattered to Me,* aired on public television in 1985 and 1986.

In 1976, Dr. Zassenhaus was selected as "Outstanding Woman of the Year" in Baltimore County. Ten years later, she was inducted into the Maryland Women's Hall of Fame by Governor Harry Hughes. She is listed in *Who's Who in America, Who's Who of American Women,* and *Foremost Women of the Twentieth Century, England.*

In the past fifteen years, Dr. Zassenhaus, a member of the staff of the Greater Baltimore Medical Center, has received honorary degrees from Goucher College, Towson State University, Notre Dame College of Maryland, Washington College of Maryland, and the University of Maryland - College Park.

A member of the Maryland Humanities Council, Dr. Zassenhaus spends countless hours each year evaluating applications for grants for furthering the cultural life in the public sector.

■ ■ ■



On October 4, 1990, *Marcel Salive MD, MPH,* an epidemiologist with the National Institute on Aging, was named the 1990 recipient of the Jay S. Drotman Award of the American Public Health Association. This award honors a young healthcare worker who demonstrates potential in the health field by challenging traditional public health policy or practice in a creative and positive manner.

As part of his residency in Preventive Medicine at Johns Hopkins, Dr. Salive wrote a petition for an occupational health standard and a press guide to the Health Care Financing Administration (HCFA) Mortality Release. Working within the U.S. Office of Disease Prevention and Health Promotion, he drafted national standards for clinical preventive services on screening for suicidal intent and counseling on sexually transmitted diseases. While affiliated with the National Center for Health Services Research, he was one of the developers of the Medical Treatment Effectiveness Program, a research program on outcomes and effectiveness of healthcare aimed at providing a scientific base for improved clinical practice. ■

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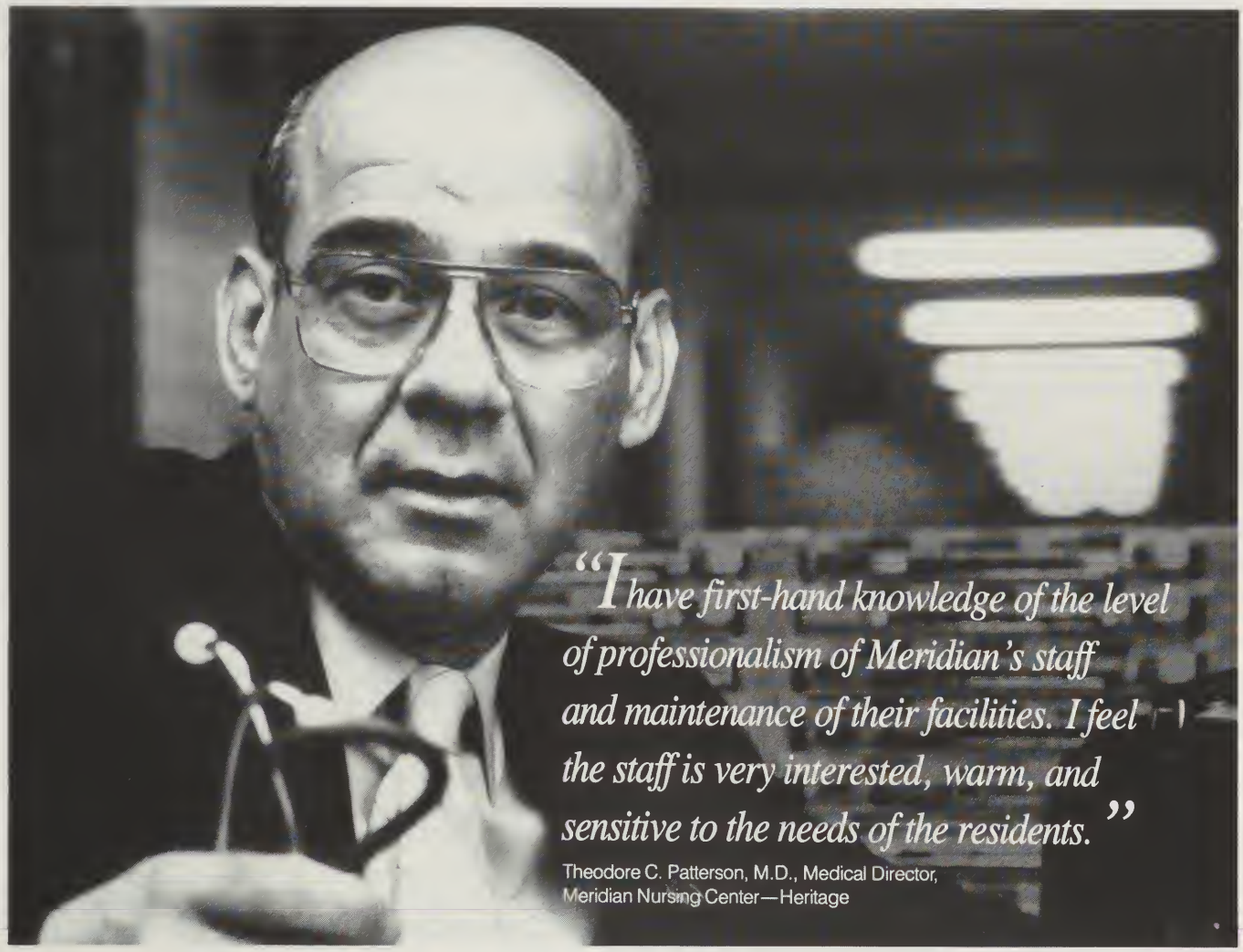
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Long-term Care of the Elderly: 18th Annual Johns Hopkins/Mason F. Lord Geriatrics Symposium Fee: $200 physicians; $150 allied health professionals. Credits to be determined. Info: 955-2959.

February-April 1991

32nd Postgraduate Institute for Pathologists in Clinical Cytopathology for Board Certified (or qualified) pathologists as a subspecialty residency. 152 AMA Cat I credits in two courses, both of which must be taken. Application and preregistration are advised ASAP; preregistration must be completed before March 15, 1991 unless by special arrangement. Info: J. Frost MD or B. Remley, 111 Pathology Building, The Johns Hopkins Hospital, Baltimore, MD 21205 USA (301-955-8594). *The entire course is given in English.*

February-April Home Study Course A, personal reading and microscopic study at own lab in preparation for Course B. Course A materials will be sent to each participant within the U.S. and Canada for home study. Participants *outside* the U.S. and Canada must make arrangements to study Course A before Course B.

April 14-April 25 In-residence Course B, lecture series, laboratory, and clinical experience at the Johns Hopkins Medical Institutions, Baltimore.

March 14-16, 1991

Brain Chemistry and Behavior: Advances in PET and SPECT Imaging Fee: $440 physicians; $340 residents. 18 AMA Cat I credits. Info: Patty Campbell 301-955-3839 or Julia Buchanan 301-955-8582.

March 18-20, 1991

Spectrum of Developmental Disabilities: Cerebral Palsy - Clinical and Research Issues Fee: $425. 20 AMA Cat I credits. Info: 301-955-2959.

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CME Courses: For each course, additional information may be obtained by contacting the Program of Continuing Education, University of Maryland School of Medicine, Room 14-011, BRB, 655 W. Baltimore St., Baltimore, MD 21201 (301-328-3956) or by calling the phone number listed under a specific program. FAX 301-328-3103.

December 7

Advances in Surgery for Infants and Children, The University Club, UMAB campus. Fee: $75. 6.5 AMA Cat I credits.

December 7-8

Culture, Economics and Cancer: Models for Intervention, Stouffer Harborplace Hotel, Baltimore. Fee and credits to be determined. Info: Sharon Stenhouse 301-328-3956.

January 24, 1991

Dean's Conference Number 3: Pediatric Infectious Disease and Immunology for the Practicing Clinician, UMAB campus, Medical School Teaching Facility, Baltimore. Fee: $35 (part of the $120 for 4 conferences). 6 AMA Cat I credits.

February 21, 1991

Dean's Conference Number 4: Medical Advances for the 21st Century, UMAB Campus, Medical School Teaching Facility. Fee: $35 (part of the $120 for 4 conferences). 6 AMA Cat I credits.

March 13-15, 1991

6th National Traumatic Brain Injury Symposium, sponsored by the Maryland Institute for Emergency Medical Services Systems, UMAB campus. Fee: $199. Info: Roberta Schwartz 301-328-6101/2478.

March 21, 1991

Dean's Conference Number 5: Health Issues for Men and Women, UMAB Campus, Medical School Teaching Facility. Fee: $35 (part of the $120 for 4 conferences). 6 AMA Cat I credits.

March 21-23, 1991

13th Annual Trauma Symposium, Convention Center, Baltimore. Fee: $395 before February 22; then, $425. Credits to be determined. Info: Kimberly Unitas 301-328-2399.

Continuously Throughout the Year

University of Maryland Dean's Conferences - Held monthly, October through April. Designed for the Family/General Practitioner and Internist. Each conference highlights different clinical departments placing emphasis on the practical methods being used and researched at the University of Maryland. Extension programs are being planned to complement the programs held on the University's Baltimore campus.

Visiting Professor Program - A new 1990-1991 directory of speakers and their topics is available for area hospitals and other healthcare organizations. No administrative fee for this service. Info: 301-328-3956.

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Departmental Rounds and Conferences - Weekly, hands-on and lecture presentations hosted by the University's clinical departments. Hour-for-hour AMA Cat I credits available. Brochure available.

Advanced Trauma Life Support Provider/Instructor Programs sponsored by University of Maryland/MIEMSS. Info: M. Nelson 301-328-2919.

December 6-7 Provider

MISCELLANEOUS MEETINGS

December 7

The Middle Adult Years - Crisis or Opportunity, sponsored by the Psychiatric Institute Foundation, Hyatt Regency Hotel, Bethesda, MD. Fee: $135; $99 students and clergy. 5 AMA Cat 1 credits. Info: Audrey Cannamela 202-965-8450.

January 19, 1991

Issues of the Spine and Vascular Disease Update, sponsored by the Maryland Academy of Family Physicians, Stouffer Harborplace Hotel, Baltimore. Fee: $50 MFAP members; $75 nonmembers; No charge for residents and medical students. 6 AMA Cat I credits; 6 AAFP prescribed hours. Info: Lee E. Gresser MD 301-747-1980.

March 16, 1991

Technology Update for the Family Physician, sponsored by the Maryland Academy of Family Physicians, Loews Annapolis Hotel, Annapolis, MD. Fee: $50 MAFP members; $75 nonmembers; no charge for residents and medical students. 5 AMA Cat I credits, 5 AAFP prescribed hours. Info: William P. Jones MD 301-747-1980.

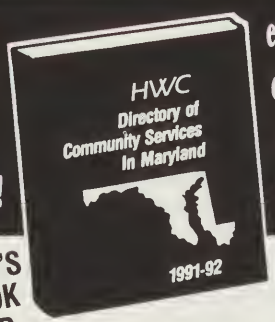
Shady Grove Adventist Hospital, 9901 Medical Center Drive, Rockville, MD. Info: 301-279-6000.

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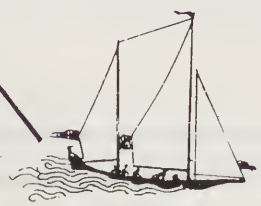


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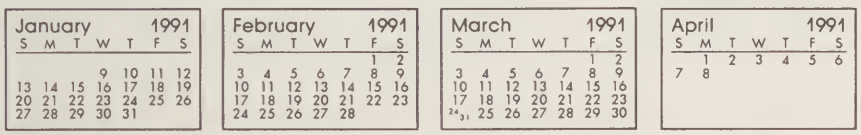
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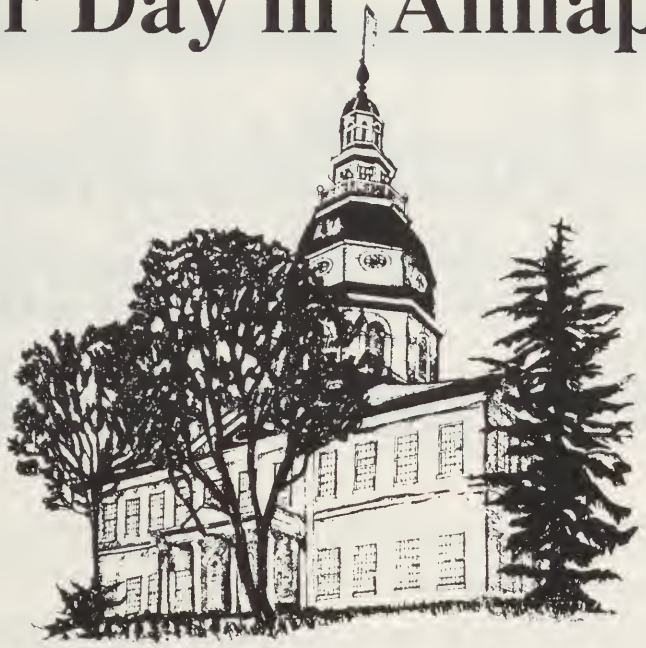
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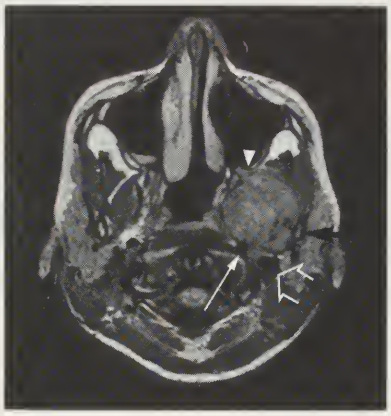


Figure 1

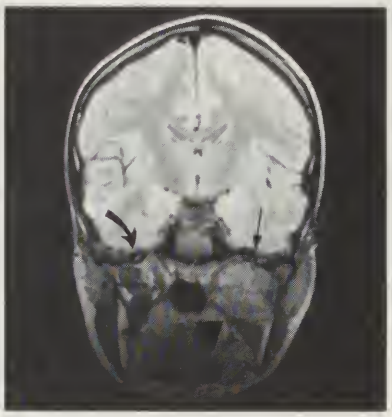


Figure 2

CLINICAL INFORMATION: This is a 14-year-old male with headache and left jaw pain.

FINDINGS: The axial image (figure 1) demonstrates a 4 cm. mass centered in the left parapharyngeal space. It deforms the left nasopharyngeal wall, but the fat plane between the nasopharyngeal wall and the mass indicates that the mass did not arise from epithelium there. The mass extends anteriorly through the pterygopalatine fossa to abut the posterior wall of the maxillary sinus (arrowhead), but it does not appear to invade the sinus. The mass extends laterally adjacent to the neck of the mandibular condyle (large arrow). It is separated from the deep lobe of the parotid by the deep branch of the facial artery. The mass is separated by fat from the internal jugular vein (open arrow). It abuts, but does not encase the internal carotid artery (long arrow). The coronal image (figure 2) demonstrates the mass effect of this large lesion (large arrow). Though the mass lies adjacent to the foramen ovale (small arrow) and appears to engulf an exiting branch of the mandibular nerve, it does not extend intracranially. The mandibular division of the fifth nerve lying just above the foramen ovale is shown on the normal right side (curved arrow).

COMMENT: MRI clearly demonstrates the size and extent of the mass in this difficult location. CT does not provide the multiplanar capability and soft tissue detail afforded by MRI which provides complete presurgical staging and analysis. The differential diagnostic possibilities must include juvenile angiofibroma because of the patient's age and sex. Paraganglioma and schwannoma were also considered possibilities. Mixed tumor arising from the deep lobe of the parotid could produce this appearance, but the lesion appeared to be separate from the deep lobe. The biopsy diagnosis was "sarcoma". Rhabdomyosarcoma in this area more commonly occurs in younger children.

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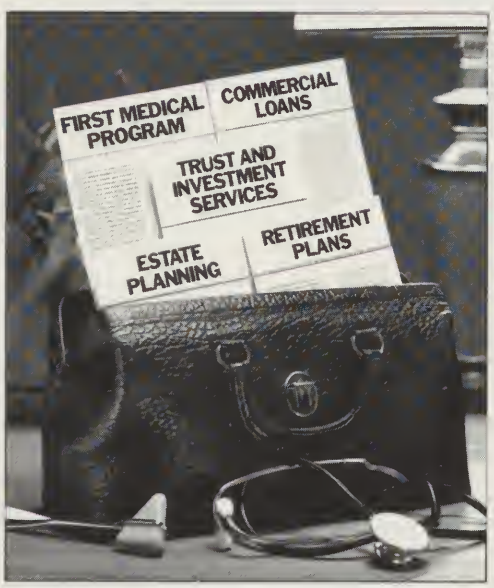
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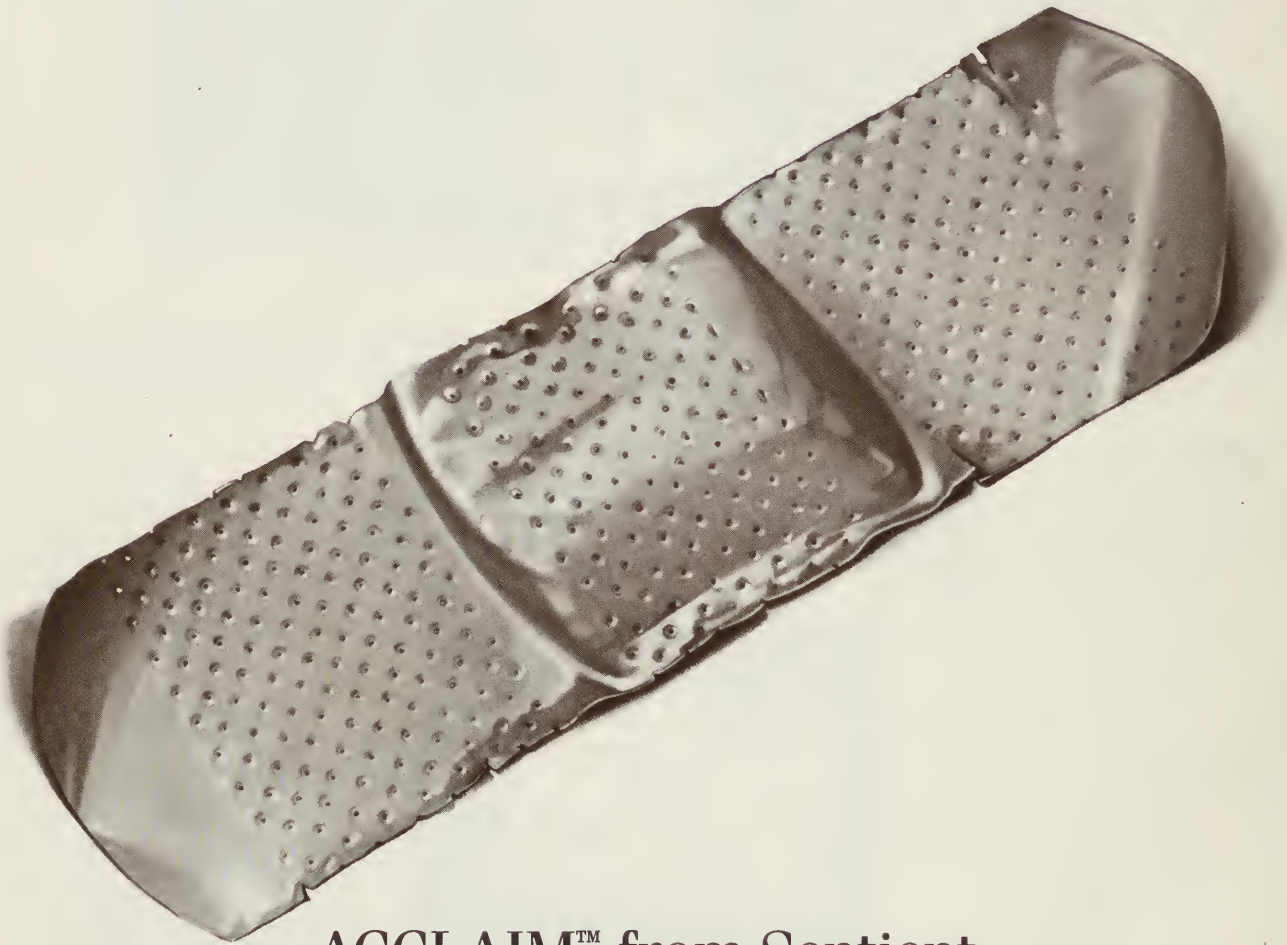
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